

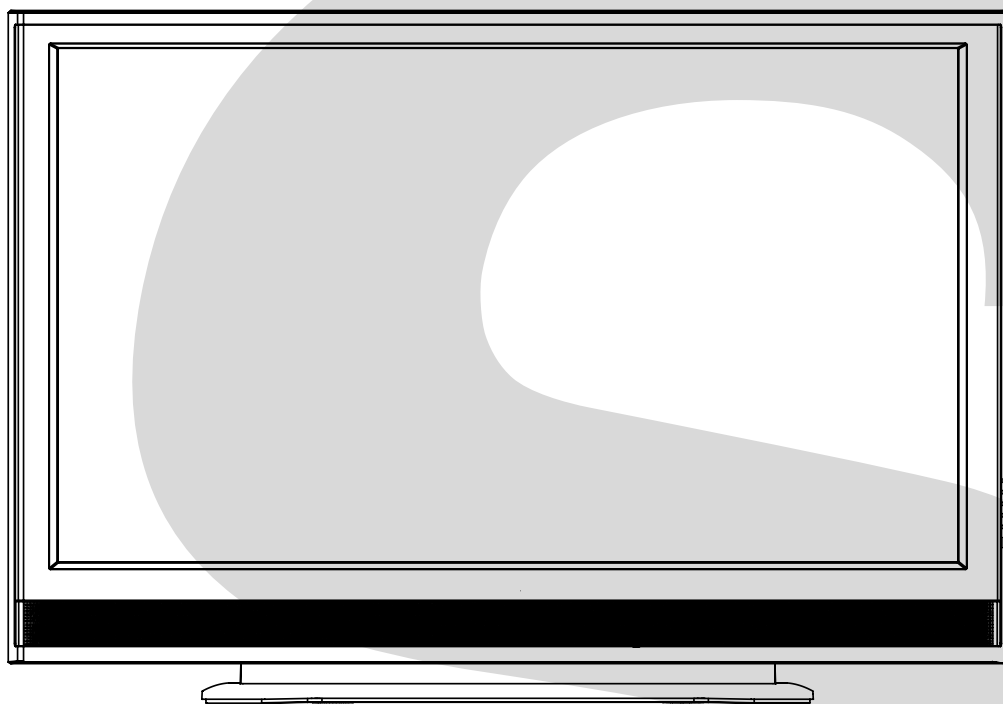
# TOSHIBA

FILE NO. 050-200611GR  
(MFR'S VERSION A)

## SERVICE MANUAL

### 42" DIGITAL PLASMA COLOR TELEVISION

# **42HP66**



The above model is classified as a green product (\*1), as indicated by the underlined serial number. This Service Manual describes replacement parts for the green product. When repairing this green product, use the part(s) described in this manual and lead-free solder (\*2).

For (\*1) and (\*2), see the next page.

(\*1)

## GREEN PRODUCT PROCUREMENT

The EC is actively promoting the WEEE & RoHS Directives that define standards for recycling and reuse of Waste Electrical and Electronic Equipment and for the Restriction of the use of certain Hazardous Substances. From July 1, 2006, the RoHS Directive will prohibit any marketing of new products containing the restricted substances.

Increasing attention is given to issues related to the global environmental. Toshiba Corporation recognizes environmental protection as a key management tasks, and is doing its utmost to enhance and improve the quality and scope of its environmental activities. In line with this, Toshiba proactively promotes Green Procurement, and seeks to purchase and use products, parts and materials that have low environmental impacts.

Green procurement of parts is not only confined to manufacture. The same green parts used in manufacture must also be used as replacement parts.

(\*2)

## LEAD-FREE SOLDER

This product is manufactured using lead-free solder as a part of a movement within the consumer products industry at large to be environmentally responsible. Lead-free solder must be used in the servicing and repair of this product.

### WARNING

**This product is manufactured using lead free solder.**

### **DO NOT USE LEAD BASED SOLDER TO REPAIR THIS PRODUCT !**

The melting temperature of lead-free solder is higher than that of leaded solder by 86°F to 104°F (30°C to 40°C). Use of a soldering iron designed for lead-based solders to repair product made with lead-free solder may result in damage to the component and or PCB being soldered. Great care should be made to ensure high-quality soldering when servicing this product — especially when soldering large components, through-hole pins, and on PCBs — as the level of heat required to melt lead-free solder is high.

## SERVICING NOTICES ON CHECKING

### 1. KEEP THE NOTICES


As for the places which need special attentions, they are indicated with the labels or seals on the cabinet, chassis and parts. Make sure to keep the indications and notices in the operation manual.

### 2. AVOID AN ELECTRIC SHOCK

There is a high voltage part inside. Avoid an electric shock while the electric current is flowing.

### 3. USE THE DESIGNATED PARTS

The parts in this equipment have the specific characters of incombustibility and withstand voltage for safety. Therefore, the part which is replaced should be used the part which has the same character.

Especially as to the important parts for safety which is indicated in the circuit diagram or the table of parts as a  mark, the designated parts must be used.

### 4. BE CAREFUL WITH THE PDP PANEL

1. When you handle the PDP Filter you must wear the gloves twice, because, you are to avoid soil it by your sweat and dust.
2. When you lift the PDP Filter you should hold it with the palm of your hand.  
Don't pick up it with your fingers.
3. The back side of PDP Filter tends to damaged. Since there is no coating.  
Therefore, it put into the packing box at the time of delivery, without piling up even at the time of unused.  
Also, when you take out it from a packing box, be careful of the rubbing.
4. When the surface becomes dirty, wipe it with a soft cloth as you draw a circle.  
When it is dirty hardly, wipe it with a cloth ethanol infiltrated.  
Don't use ethanol for the back side.
5. Do not apply it to direct sunshine so that the characteristic may change.
6. When you inspect the surface (the scratch, the dirt and the air bubble), use the fluorescent light.
7. When you use SCREW DRIVER and SCREW, be careful of a metallic powder being mixed.
8. Do not damage the PDP Module with a DRIVER.
9. Do Handling with the PDP Module by 2 persons.
10. There is a step difference between the cover and PDP Module.  
So, when you remove the screws, place a cushion on it so that the PDP Module is not being scratched.  
Then remove the screws carefully.

11. When you remove the cover, do not scratch the FPC on both ends of PDP Module.

12. Hold the four ends holder and be careful not to touch the glass area.

13. Take care for the damage of vacuum exhaust pipe due to a collision.

14. Moisture condensation may damage the PDP Module.

So, leave it for 48 hours at the service room.

### 5. PUT PARTS AND WIRES IN THE ORIGINAL POSITION AFTER ASSEMBLING OR WIRING

There are parts which use the insulation material such as a tube or tape for safety, or which are assembled in the condition that these do not contact with the printed board. The inside wiring is designed not to get closer to the pyrogenic parts and high voltage parts. Therefore, put these parts in the original positions.

### 6. PERFORM A SAFETY CHECK AFTER SERVICING

Confirm that the screws, parts and wiring which were removed in order to service are put in the original positions, or whether there are the portions which are deteriorated around the serviced places serviced or not. Check the insulation between the antenna terminal or external metal and the AC cord plug blades. And be sure the safety of that.

#### (INSULATION CHECK PROCEDURE)

1. Unplug the plug from the AC outlet.
2. Remove the antenna terminal on TV and turn on the TV.
3. Insulation resistance between the cord plug terminals and the external exposure metal **[Note 2]** should be more than 2.5M ohm by using the 500V insulation resistance meter **[Note 1]**.
4. If the insulation resistance is less than 2.5M ohm, the inspection repair should be required.

#### **[Note 1]**

If you have not the 500V insulation resistance meter, use a Tester.

#### **[Note 2]**

External exposure metal: Antenna terminal  
Screw  
21pin jack  
Side RCA jack  
Rear RCA jack  
Headphone jack

## HOW TO ORDER PARTS

Please include the following informations when you order parts. (Particularly the VERSION LETTER.)

1. MODEL NUMBER and VERSION LETTER

The MODEL NUMBER can be found on the back of each product and the VERSION LETTER can be found at the end of the SERIAL NUMBER.

2. PART NO. and DESCRIPTION

You can find it in your SERVICE MANUAL.

## IMPORTANT

When you exchange IC and Transistor with a heat sink, apply silicon grease (YG6260M) on the contact section of the heat sink. Before applying new silicon grease, remove all the old silicon grease. (Old grease may cause damage to the IC and Transistor).

## PANEL LOCK

To unlock the Password of Panel Lock, please follow the steps below.

1. Turn Unit ON.
2. Press and hold the 'VOLUME DOWN' key on the front panel for more than 10 seconds.
3. The Panel Lock has now been cleared.

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# GENERAL SPECIFICATIONS

G-1	TV System	PDP	PDP Size / Visual Size	42.32 inch / 1074.9 mmV
			Number of Pixels(H x V)	1024(H) x 768(V)
		Color System		NTSC
		Speaker		4 Speaker
			Position	Front
		Main	Size	2.2 x 5.0 inch
			Impedance	4 ohm
		Tweeter	Size	2.0 inch
G-2	Tuning System		Impedance	8 ohm
		Sound Output	MAX	10W + 10W
			10%(Typical)	---
		Broadcasting System	Analog	US System
			Digital	M
		Tuner and Receive CH	System	ATSC(8VSB)/QAM
			Destination	1Tuner
			CH Coverage	USA(W/ CABLE)
G-3	Signal			2 - 69, 4A, A-5 - A-1, A - I, J - W, W+1 - W+84
		Intermediate Frequency	Digital	44.00MHz
			Analog	45.75MHz
			Picture(FP)	41.25MHz
			Sound(FS)	4.50MHz
			FP-FS	
		Preset CH		No
		Stereo/Dual TV Sound		US-Stereo
G-4	Power	Tuner Sound Muting		Yes
		Video Signal	Input Level	1 V p-p/75 ohm
			Output Level	1 V p-p/75 ohm
			S/N Ratio (Weighted)	--
			Horizontal Resolution at DVD Mode	--
		RGB Signal	Output Level	--
		Audio Signal	Input Level	-8.0dBm/50k ohm
			Output Level at DVD at TV	--
G-5	Regulation			-8 dBm/1k ohm (0dBm=0.775Vrms)
				0-600mV /1k ohm (Variable out mode)
			Digital Output Level	0.5 V p-p/75 ohm
			S/N Ratio at DVD (Weighted)	--
			Harmonic Distortion	0.02% (1KHz)
			Frequency Response : at DVD at Video CD at SVCD at CD	--
				--
				--
G-6	Temperature			--
		Power Source	AC	120V AC 60Hz
			DC	---
		Power Consumption	at AC at DC	360 W at AC 120 V 60 Hz
				--
			Stand by (at AC) Per Year	1 W at AC 120 V 60 Hz
				-- kWh/Year
		Energy Star		Yes
G-7	Protector		Power Fuse	Yes
			Safety Circuit	Yes
			IC Protector(Micro Fuse)	No
G-8	Operating Humidity		Safety Radiation	UL/CSA
			X-Radiation	FCC/IC
				---
		Operation		+/-0oC ~ +40oC
		Storage		-20oC ~ +60oC
G-9	Clock and Timer			
		Clock		Yes
		Sleep Timer	Max Time	120 Min
			Step	10 Min
		On Timer	Program	Yes
		Off Timer	Program	No
		Game Timer		Yes
		Wake Up Timer		No
G-10	Timer Back-up (at Power Off Mode)		more than	-- Min Sec

## GENERAL SPECIFICATIONS

G-9	Remote Control	Unit	RC-KK
		Glow in Dark Remocon	Yes
		Remocon Format	TOSHIBA
		Format	TOSHIBA
		Custom Code	<u>40-BF h</u>
		Power Source	3V
		Voltage(D.C)	UM-4 x 2 pcs
		UM size x pcs	
		Total Keys	44
		Keys	
		Power	Yes
		Input	Yes
		Display	Yes
		Mute	Yes
		1	Yes
		2	Yes
		3	Yes
		4	Yes
		5	Yes
		6	Yes
		7	Yes
		8	Yes
		9	Yes
		0	Yes
		100 / +10	Yes
		CH Return / Ent	Yes
		CH +	Yes
		CH -	Yes
		VOL +	Yes
		VOL -	Yes
		SLEEP	Yes
		Picture Size	Yes
		UP	Yes
		LEFT / FAV -	Yes
		MENU/ENTER/DVD MENU	Yes
		RIGHT / FAV +	Yes
		DOWN	Yes
		EXIT	Yes
		Multi Brand Keys	
		TV	Yes
		CBL/SAT	Yes
		VCR	Yes
		DVD	Yes
		ENTER	Yes
		PAUSE	Yes
		PLAY	Yes
		STOP	Yes
		REW	Yes
		FF	Yes
		SKIP/SEARCH <<	Yes
		SKIP/SEARCH>>	Yes
		TOP MENU	Yes
		REC	Yes
		CLEAR	Yes
		TV/VCR	Yes

# GENERAL SPECIFICATIONS

G-10	Features	Auto Shut Off	Yes
		Power On Memory	Yes
		Auto Search	No
		DNR	Yes
			3D
		Comb Filter	Yes
			3D
		Just Clock Function	No
		Game Position	No
		Auto Setup(Language/CH Program)	Yes
		Picture Setting(TV)	Yes
		Mode(Picture Preference)	Yes
		Brightness , Contrast , Color	Yes
		Tint	Yes
		Sharpness	Yes
		Color Temperature	Yes
		Cable Clear	Yes
		Picture Setting(PC)	Yes
		BRIGHTNESS , CONTRAST	Yes
		HOR POSITION , VER POSITION	Yes
		PHASE , CLOCK	Yes
		AUTO ADJUST	No
		RED , GREEN , BLUE	Yes
		Audio	MTS
			Yes
		Tone Control (Bass/Treble/Balance)	Yes
		Stable Sound	Yes
		Surround	No
		BBE	No
		SRS WOW (SRS 3D/Focus/Tru Bass)	Yes
		Variable Audio Out	Yes
		Tuning	CH Program
			Yes
		TV/Cable	Yes
		ADD/ERASE	Yes
		Screen Saver	Inversion(Reverse)
			Yes
		Full White(White)	Yes
		Screen Saver(Picture Shift)	Yes
		Side Panel Color	Yes
		Label	CH Label
			Yes
		Video Label	Yes
		Favorite CH	Yes
		V-Chip	Yes
		RRT Setup	No
		Lock	Hotel Lock
			No
		Channel Lock	Yes
		Video Lock	Yes
		Panel Lock	Yes
		OSD Language	English
			French
		Closed Caption	Yes
		CC Advanced	Yes
		Picture Size	Yes
		Picture Scroll	Yes
		Aspect	Yes
		Backlight	No
		PFC(Power Factor circuit)	Yes
		Freeze frame	No
		PIP/POP	No
		Digital Out	Dolby Digital
			Yes
		MPEG	No
		PCM	Yes
		DTS	No
		PC Monitor Input	Yes
			Yes (60Hz)
		VGA (640x480)	
		VGA (720x400)	No
		WVGA (848x480)	Yes (60Hz)
		SVGA (800x600)	Yes (60Hz)
		XGA (1024x768)	Yes (60Hz)
		WXGA (1280x768)	Yes (60Hz)
		WXGA (1280x720)	Yes (60Hz)
		WXGA (1360x768)	Yes (60Hz)
		SXGA (1280x1024)	No



## GENERAL SPECIFICATIONS

		HDMI Input	VGA (640 x 480)	Yes (60Hz)
			720x480i (4:3)	Yes (60Hz)
			720x480i (16:9)	Yes (60Hz)
			720x480p (4:3)	Yes (60Hz)
			720x480p (16:9)	Yes (60Hz)
			720x576i (4:3)	No
			720x576i (16:9)	No
			720x576p (4:3)	No
			720x576p (16:9)	No
			1280x720p	Yes (60Hz)
			1920x1080i	Yes (60Hz)
		Component Input		Yes
			720x480i (4:3)	Yes (60Hz)
			720x480i (16:9)	Yes (60Hz)
			720x480p (4:3)	Yes (60Hz)
			720x480p (16:9)	Yes (60Hz)
			720x576i (4:3)	No
			720x576i (16:9)	No
			720x576p (4:3)	No
			720x576p (16:9)	No
			1280x720p	Yes (60Hz)
			1920x1080i	Yes (60Hz)
G-11	Accessories	Owner's Manual	Language	English / French / Spanish
			w/Guarantee Card	Yes
		Remote Control Unit		Yes
		Rod Antenna		No
			Poles	-
			Terminal	-
		Loop Antenna (W/ Antenna Change Plug)		No
			Terminal	-
		U/V Mixer		No
		DC Car Cord (Center+)		No
		Guarantee Card		No
		Warning Sheet		No
		Circuit Diagram		No
		Antenna Change Plug		No
		Service Facility List		No
		Important Safeguard		No
		Dew/AHC Caution Sheet		No
		Quick Set-up Sheet		No
		Battery		Yes
			UM size x pcs	UM-4 x 2 pcs
			OEM Brand	No
		AC Adapter		No
		AC Cord (for AC Adapter)		No
		AC Cord		Yes
		AV Cord (2Pin-1Pin)		No
		HDMI-DVI Cable		No
		Registration Card		Yes
		300 ohm to 75 ohm Antenna Adapter		No
		Information Sheet		Yes
		Information Sheet(for IMPORTANT NOTICE)		Yes
		Information Sheet(for PICTURE SHIFT)		Yes

# GENERAL SPECIFICATIONS

G-12	Interface		Switch	Power (Tact)	Yes
				System Select	No
	Main Power SW	No			
	Channel Up/Menu Up	Yes			
	Channel Down/Menu Down	Yes			
	Volume Up/Menu >	Yes			
	Volume Down/Menu <	Yes			
	Input Select	Yes			
	Menu	No			
	Main Power SW	No			
	Indicator	Power / Stand-by	Yes(GREEN / RED)		
		On Timer	No		
	Terminals	Rear	Video Input 1	RCA x 1	
			Audio Input	RCA x 2(L/MONO, R)	
			S- Input	Yes	
			Video Input 2	RCA x 1	
			Audio Input	RCA x 2(L/MONO, R)	
			S- Input	Yes	
			Video Output	RCA x 1	
			Audio Output	RCA x 2(Variable L, R)	
			Component In 1	RCA x 3	
			Audio Input (Component In use)	RCA x 2(L/MONO, R)	
			Component In 2	RCA x 3	
			Audio Input (Component In use)	RCA x 2(L/MONO, R)	
			Other Terminal	No	
			Euro Scart (21Pin)	No	
			PC Monitor Input (D-Sub)	Yes	
			Audio Input	RCA x 2(L/MONO, R)	
			HDMI Input 1	Yes	
			Audio Input(DVI 1)	PC Monitor Audio Input Alternative	
			HDMI Input 2	Yes	
			Audio Input(DVI 2)	Mini Pin Jack(3.5), STEREO	
			Sub Woofer Out	No	
			Diversity	No	
			Digital Audio Out (Coaxial)	Yes	
			Digital Audio Out (Optical)	Yes	
			IR Pass Through	Yes	
			Ext Speaker	No	
			DC Jack 12V(Center +)	No	
			VHF/UHF Antenna Input(Digital/Analog)	F Type	
		Side	AC Inlet	Yes	
			Video Input 3	RCA x 1	
			Audio Input	RCA x2(L/MONO,R)	
			S- Input	Yes	
			Other Terminal	No	
G-13	Set Size	Approx. W x D x H (mm)		1,070 x 350 x 779.5	
G-14	Weight	Net Approx.		38.4kg (84.7 lbs)	
		Gross Approx.		45.4kg (100.1 lbs)	
G-15	Carton	Master Carton		No	
			Content	--- Sets	
			Material	--- / ---	
			Dimensions W x D x H(mm)	---	
			Description of Origin	---	
		Gift Box	Material	Double/Brown	
			Dimensions W x D x H(mm)	1,180 x 440 x 895	
			Design	As per Buyer's	
			Description of Origin	Yes	
		Drop Test		Natural Dropping At 1 Corner / 2 Edges / 4 Surfaces	
			Height (cm)	50(ORION SPEC:31)	
		Container Stuffing	100	Sets/40' container	
G-16	Material	Cabinet	Cabinet Front	ABS 94V0 Non-DECABROM	
			Cabinet Rear	Steel	
		PCB	Non-Halogen	No	
			Eyelet	Yes	
		G-17	Environment	Environmental standard requirement	
Pb-free				Phase3(Pha	

# DISASSEMBLY INSTRUCTIONS

## 1. EXCHANGE METHOD OF PDP MODULE

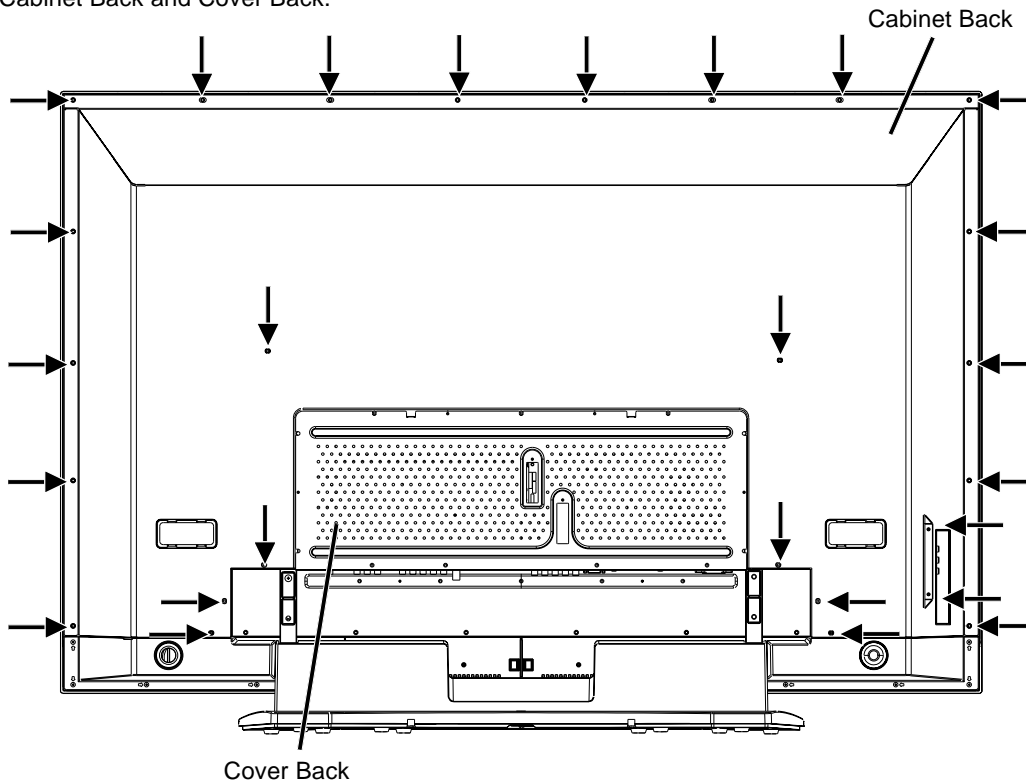
### NOTE

1. Do handling with the PDP Module by 2 persons.

## REMOVAL METHOD OF PDP MODULE

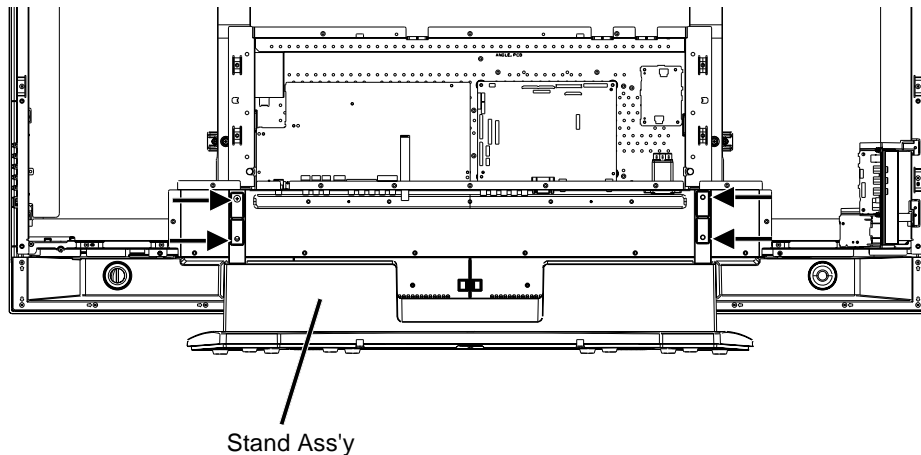
### 1-1: CABINET BACK/COVER BACK

1. Remove the screw.
2. Remove the Cabinet Back and Cover Back.



### 1-2: STAND ASS'Y

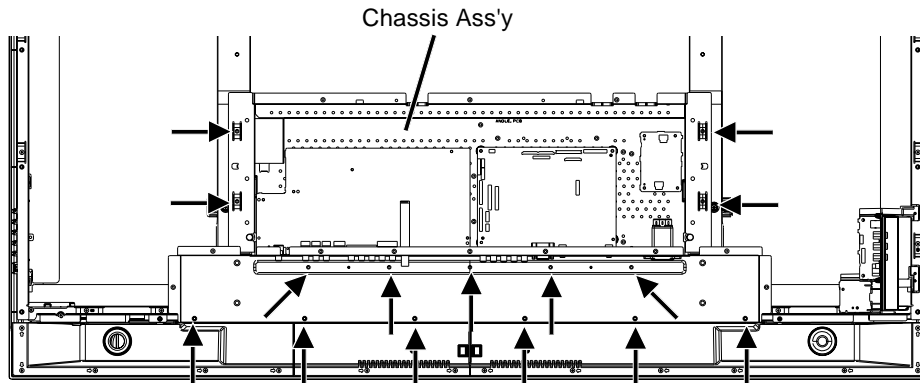
1. Spread a sheet on the plane table and place the PDP Module carefully with the panel face down.
2. Remove the screw.
3. Remove the Stand Ass'y.



# DISASSEMBLY INSTRUCTIONS

## 1-3: CHASSIS BLOCK

1. Disconnect the connector.
2. Remove the screw.
3. Remove the Chassis Ass'y.

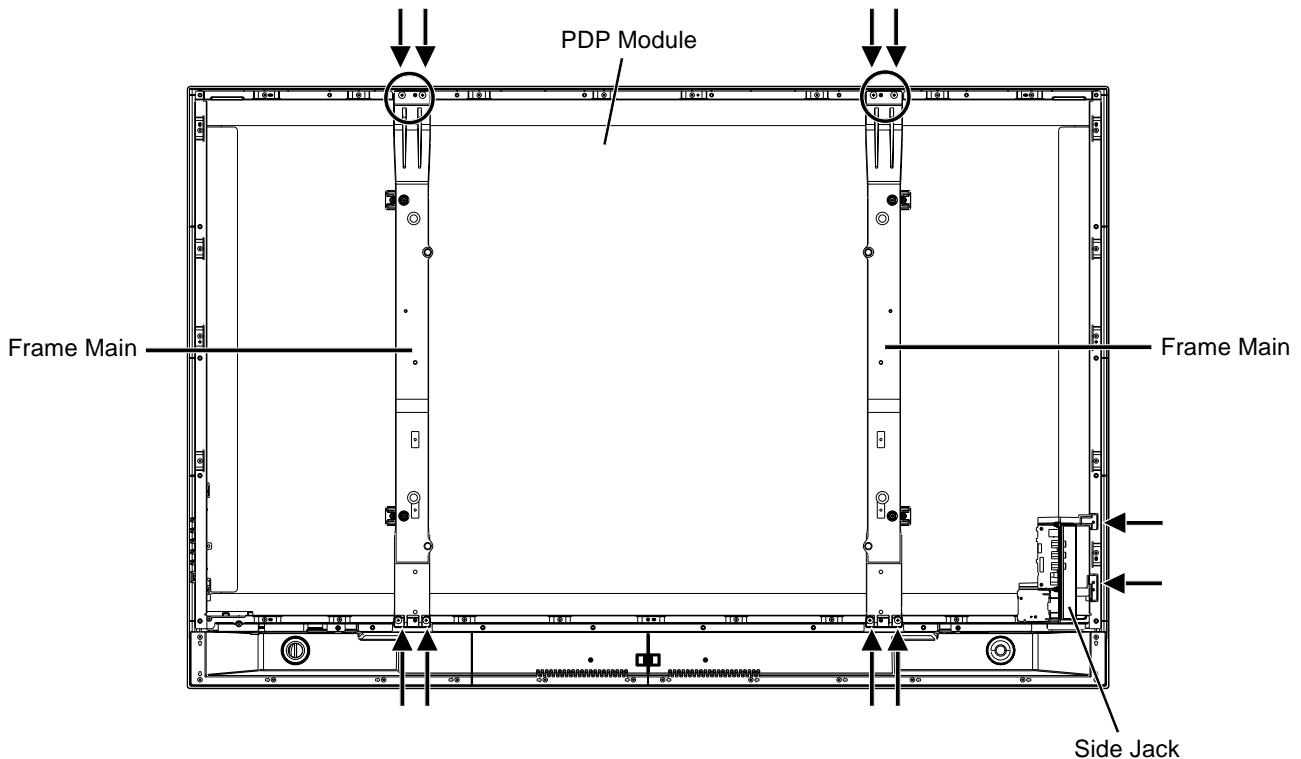
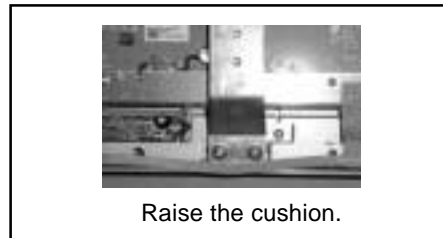


## 1-4: PDP MODULE

1. Remove the screw.
2. Remove the Side Jack.
3. Hold the Frame Main carefully and remove the PDP Module.

### NOTE

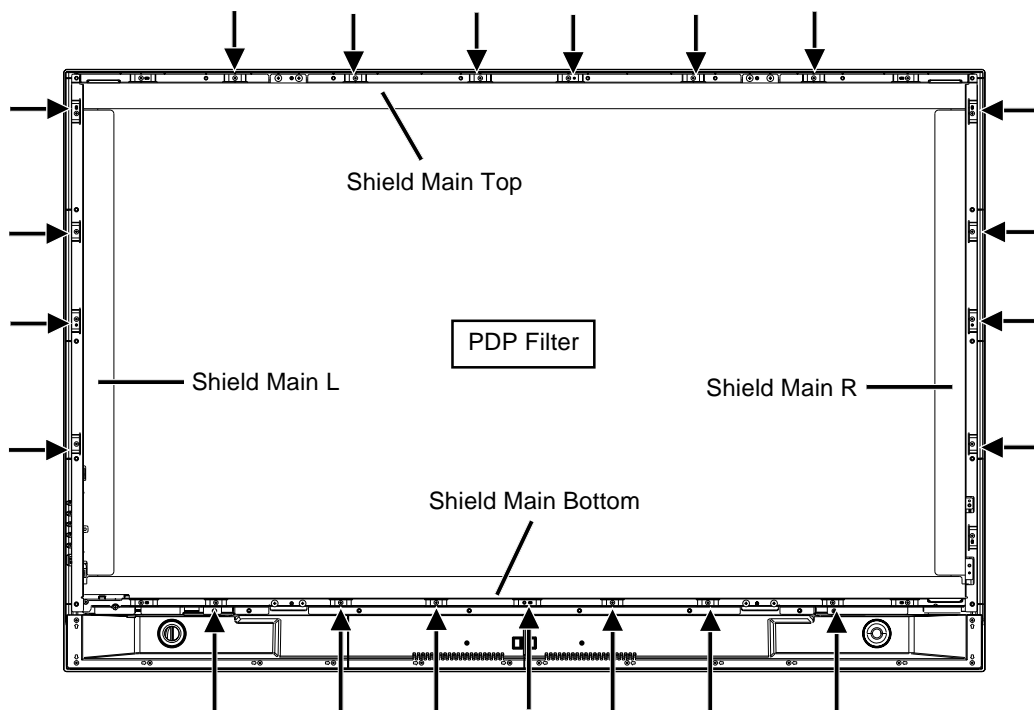
1. When removing the PDP Module, raise the cushion carefully so that you do not scratch the face.



## DISASSEMBLY INSTRUCTIONS

### 1-5: PDP FILTER

1. Remove the screw.
2. Remove the Shield Main.
3. Remove the PDP Filter.



# DISASSEMBLY INSTRUCTIONS

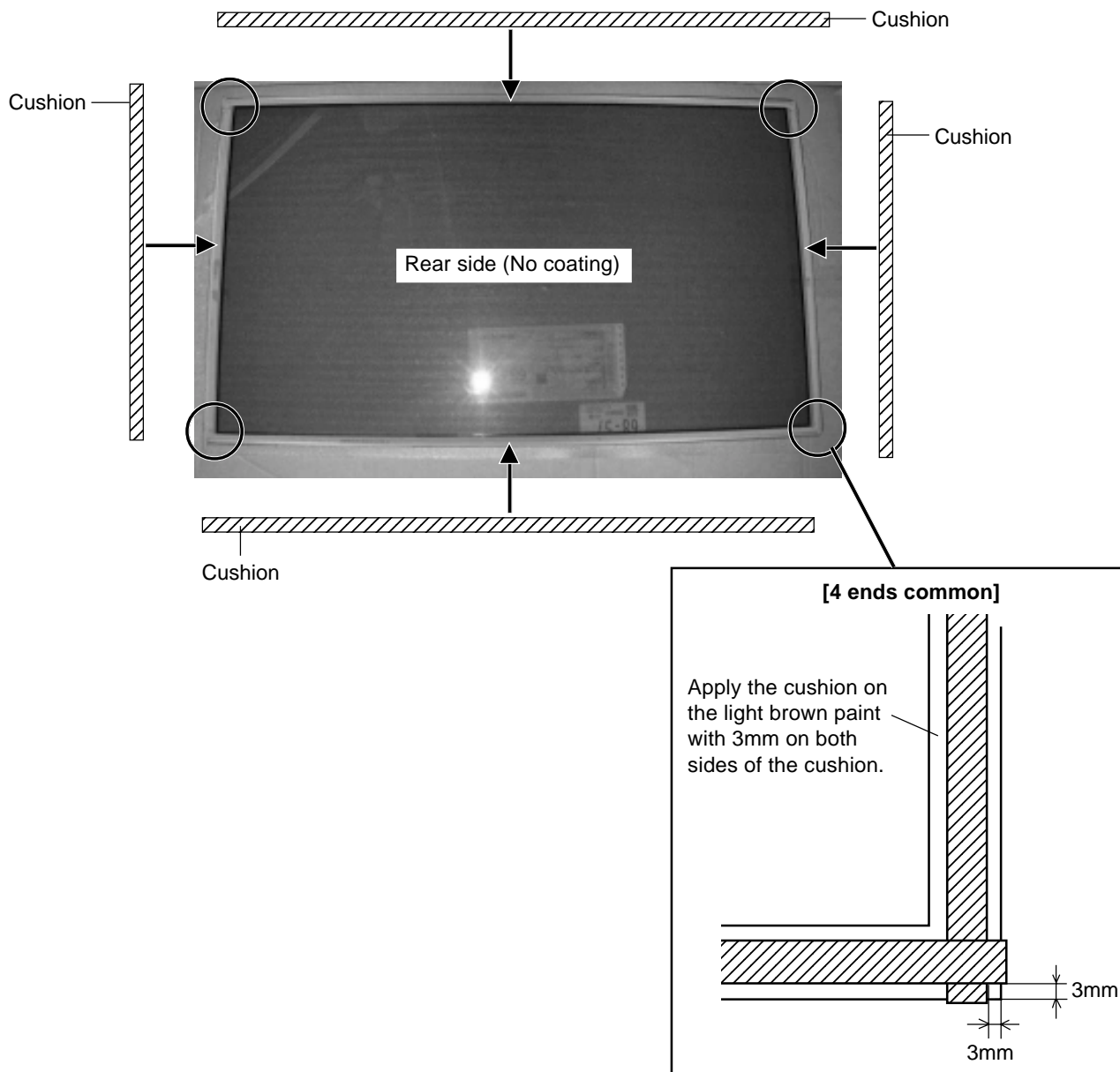
## INSTALLATION METHOD OF PDP MODULE

### NOTES FOR NEW PDP FILTER HANDLING

1. When you handle the PDP Filter, you must wear gloves to avoid soiling it with sweat and dust.
2. When you lift the PDP Filter, use the palm of your hand. Don't pick it up with your fingers.
3. The back side of the PDP Filter tends to get damaged, since there is no coating. Therefore, it needs to be put into the packing box at the time of delivery, even if it is not being used at the time. Also, when you take it out of the packing box, be careful not to rub the appearance.
4. When the surface becomes dirty, use a cloth which is soft and dust free and wipe it in a circular motion.  
When very dirty, lightly use alcohol on the cloth to wipe. Do not use alcohol for the back side.
5. Do not apply it to direct sunlight, the characteristics may change.
6. When you inspect for scratches and dirt, use a light to check for air bubbles on the PDP Filter surface.

### 1-6: PDP FILTER (PREPARATION)

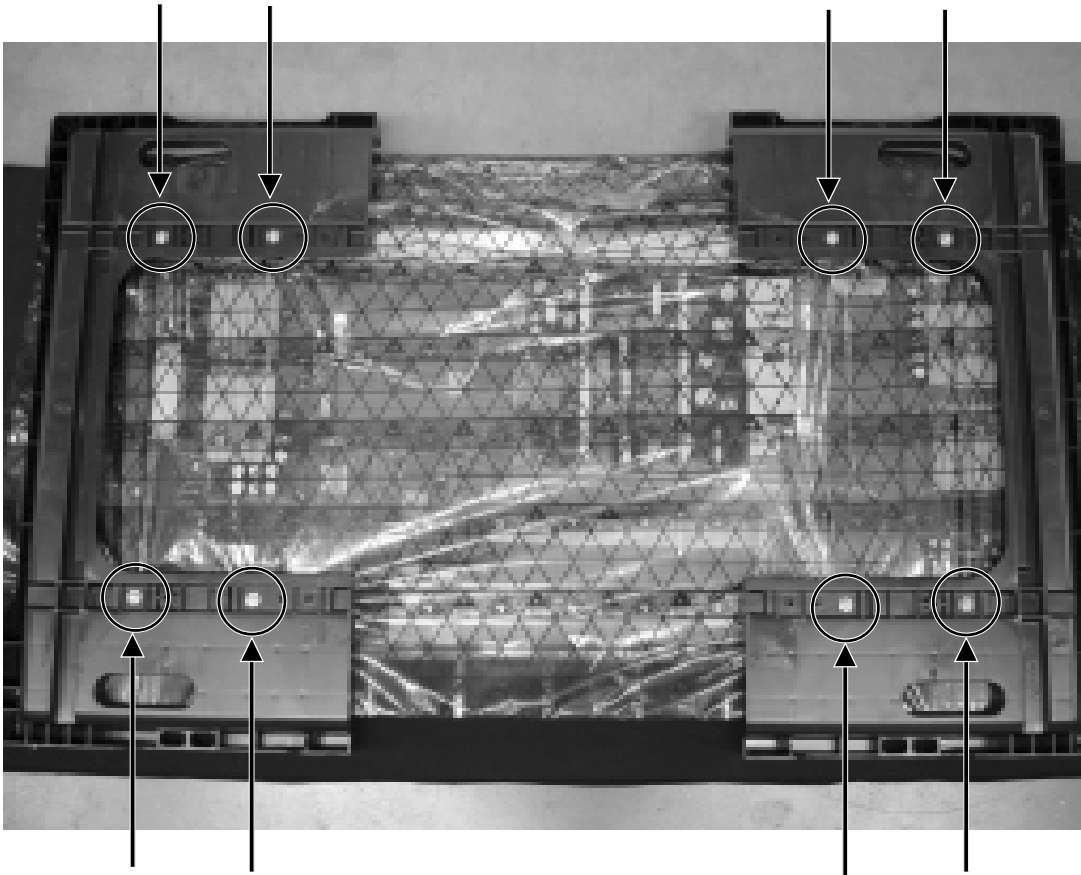
1. Fix the cushion. (Order the cushion new.)



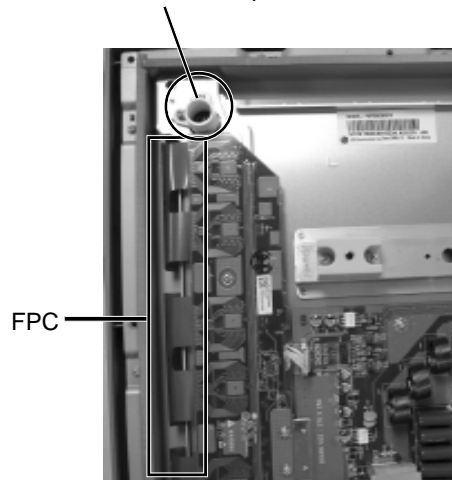
# DISASSEMBLY INSTRUCTIONS

## NOTES FOR NEW PDP MODULE HANDLING

1. Handle the PDP Module with 2 people.
2. There is a step difference between the cover and the PDP Module, so when you remove the screws, place a cushion on it to keep the PDP Module from being scratched. Then remove the screws carefully.
3. When you remove the cover, do not scratch the FPC on both ends of PDP Module.
4. Hold all four ends of the holder and be careful not to touch the glass area.
5. Be careful not to damage the vacuum exhaust pipe.
6. Moisture condensation may damage the PDP Module, so leave it in the service room for 48 hours.
7. Reuse the cover, vinyl sheet and screws when returning the PDP Module.



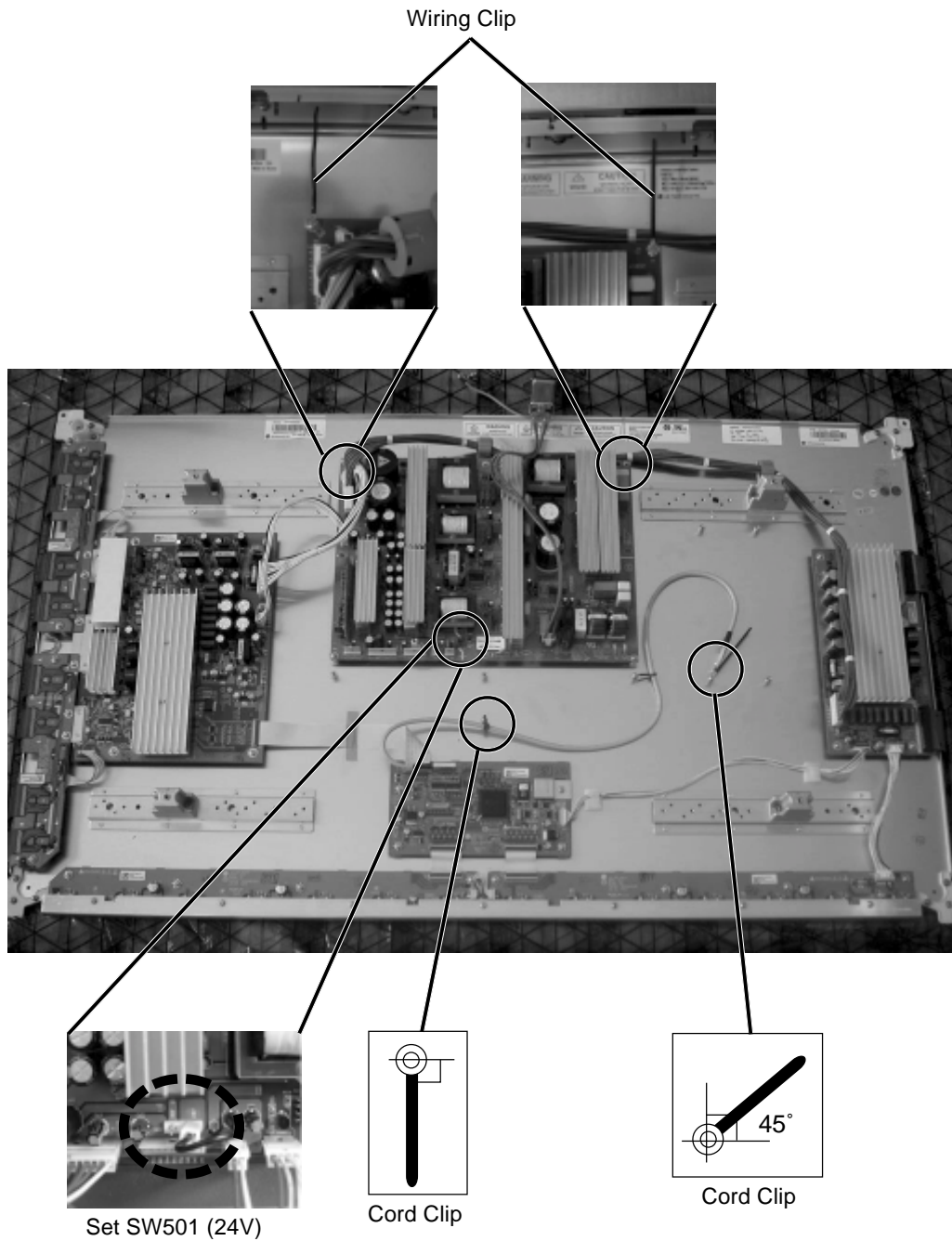
Vacuum Exhaust Pipe



# DISASSEMBLY INSTRUCTIONS

## 1-7: PDP MODULE (PREPARATION)

1. Remove the fixing screw of Power PCB. Then fix the Wiring Clip. (Use the clips on defective PDP Module)
2. Fix the Cord Clip. (Use the clips on defective PDP Module)
3. Fix the Wiring Clip. (Use the clips on defective PDP Module)

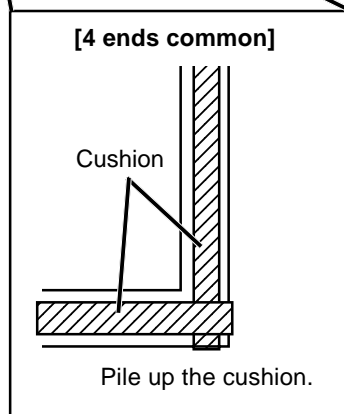
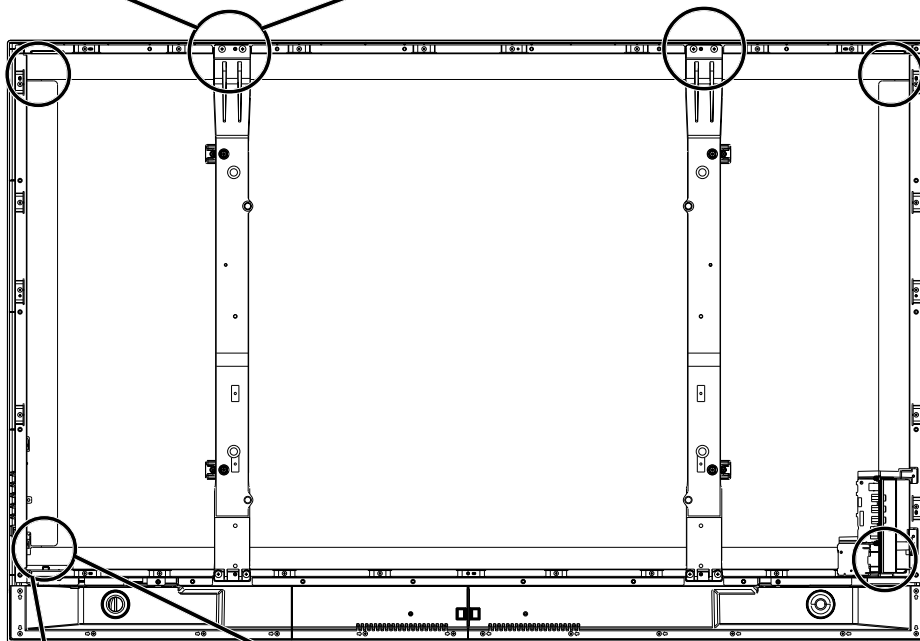
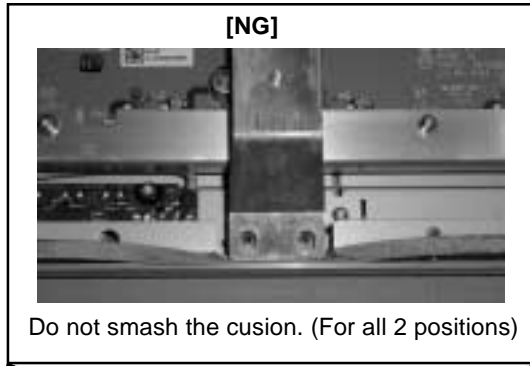




# DISASSEMBLY INSTRUCTIONS

## 1-8: PDP MODULE

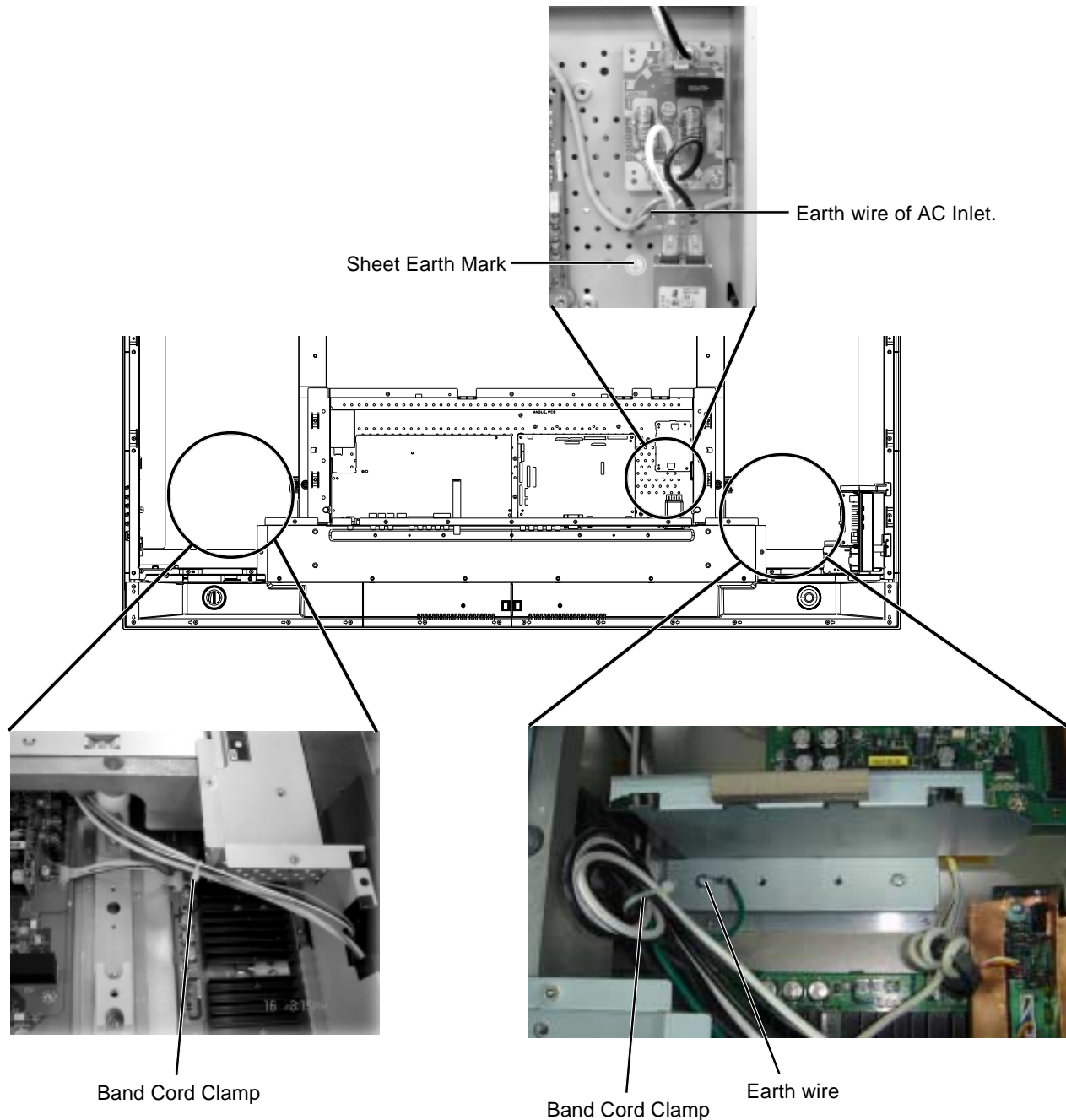
1. Assemble the Frame Main. (Use the clips on defective PDP Module)
2. Install the PDP Filter on the set.
3. Install the Shield Main on the set.
4. Hold the Frame Main carefully and install the New PDP Module on the set.
5. Install the Side Jack on the set.



# DISASSEMBLY INSTRUCTIONS

## 1-9: CHASSIS BLOCK

1. Do the wire fixing as shown in the photo, then install the Chassis Ass'y.
2. Install the Stand Ass'y.



## 1-10: CABINET BACK/COVER BACK

1. Check if the wire handlings are correct.
2. Check if the cushion positions are correct.
3. Check if the tape positions are correct.
4. Install the Cabinet Back and Cover Back.

# DISASSEMBLY INSTRUCTIONS

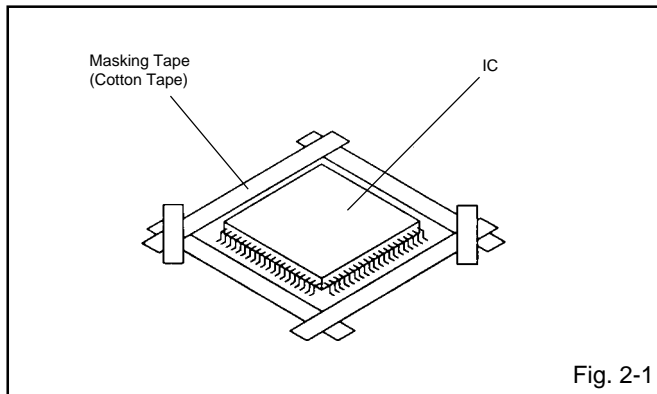
## 2. REMOVAL AND INSTALLATION OF FLAT PACKAGE IC

### REMOVAL

1. Put Masking Tape (cotton tape) around the Flat Package IC to protect other parts from any damage. (Refer to Fig. 2-1.)

#### NOTE

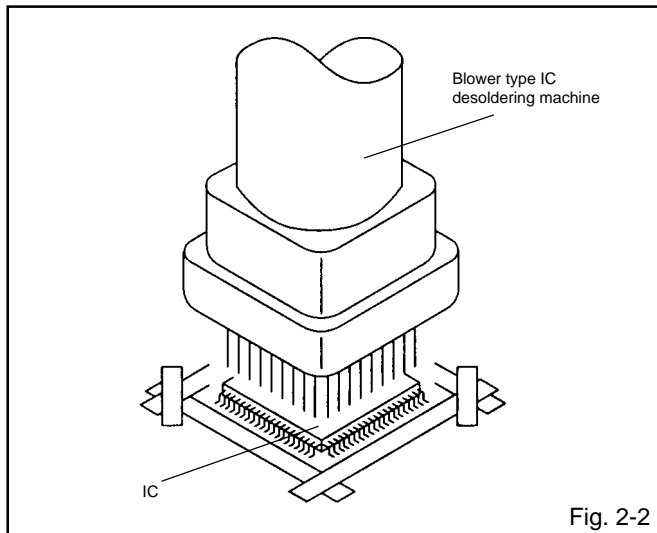
Masking is carried out on all the parts located within 10 mm distance from IC leads.



2. Heat the IC leads using a blower type IC desoldering machine. (Refer to Fig. 2-2.)

#### NOTE

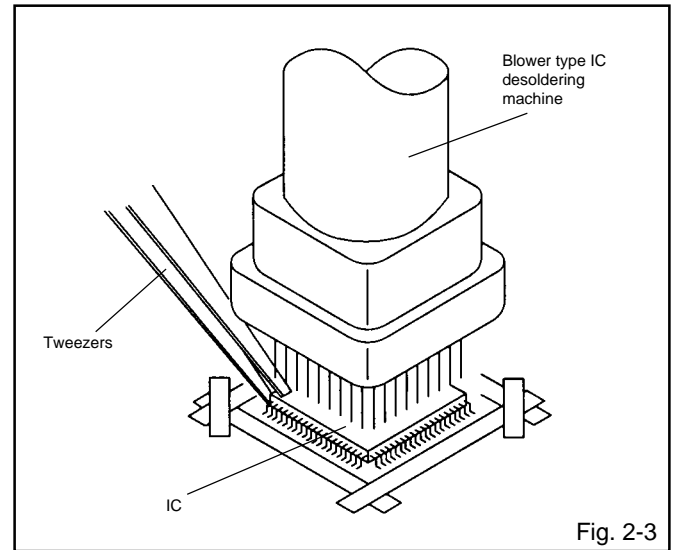
Do not rotate or move the IC back and forth, until IC can move back and forth easily after desoldering the leads completely.



3. When IC starts moving back and forth easily after desoldering completely, pickup the corner of the IC using a tweezers and remove the IC by moving with the IC desoldering machine. (Refer to Fig. 2-3.)

#### NOTE

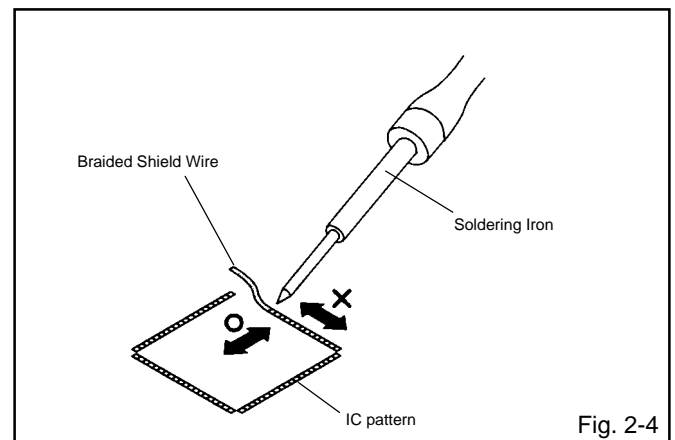
Some ICs on the PCB are affixed with glue, so be careful not to break or damage the foil of each IC leads or solder lands under the IC when removing it.



4. Peel off the Masking Tape.
5. Absorb the solder left on the pattern using the Braided Shield Wire. (Refer to Fig. 2-4.)

#### NOTE

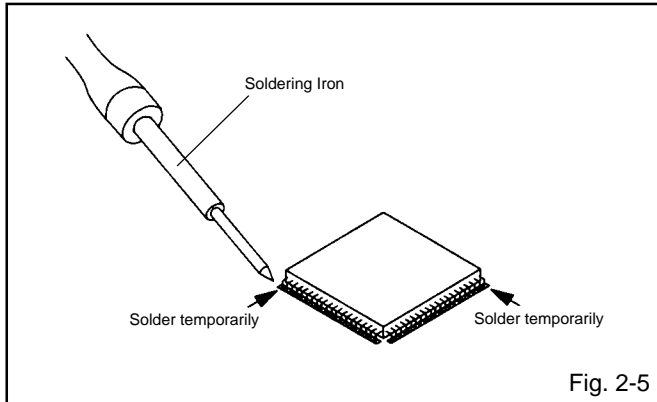
Do not move the Braided Shield Wire in the vertical direction towards the IC pattern.



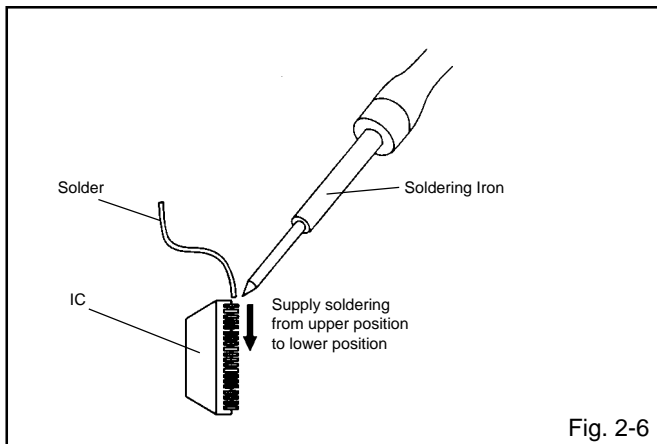
# DISASSEMBLY INSTRUCTIONS

## INSTALLATION

1. Take care of the polarity of new IC and then install the new IC fitting on the printed circuit pattern. Then solder each lead on the diagonal positions of IC temporarily. (Refer to Fig. 2-5.)



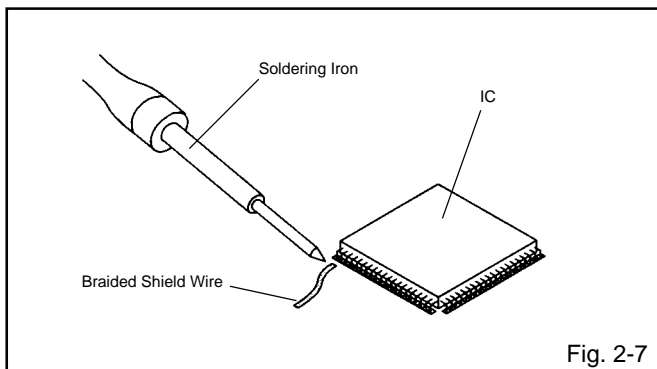
2. Supply the solder from the upper position of IC leads sliding to the lower position of the IC leads. (Refer to Fig. 2-6.)



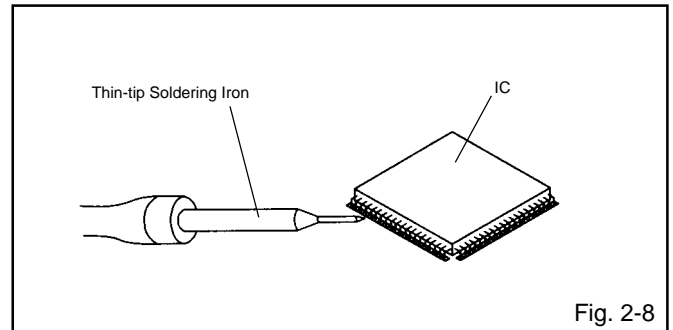
3. Absorb the solder left on the lead using the Braided Shield Wire. (Refer to Fig. 2-7.)

### NOTE

Do not absorb the solder to excess.



4. When bridge-soldering between terminals and/or the soldering amount are not enough, resolder using a Thin-tip Soldering Iron. (Refer to Fig. 2-8.)



5. Finally, confirm the soldering status on four sides of the IC using a magnifying glass. Confirm that no abnormality is found on the soldering position and installation position of the parts around the IC. If some abnormality is found, correct by resoldering.

### NOTE

When the IC leads are bent during soldering and/or repairing, do not repair the bending of leads. If the bending of leads are repaired, the pattern may be damaged. So, always be sure to replace the IC in this case.

## SERVICE MODE LIST

This unit is provided with the following SERVICE MODES so you can repair, examine and adjust easily.

To enter to the SERVICE MODE function, press and hold both buttons simultaneously on the main unit and on the remote control for more than the standard time in the appropriate condition. (See below chart.)

Set Condition	Set Key	Remocon Key	Standard Time	Operations
TV mode	VOL. DOWN (Minimum)	0	2 sec.	Releasing of V-CHIP PASSWORD.
TV mode	VOL. DOWN (Minimum)	1	2 sec.	Initialization of factory TV data. NOTE: If you set factory initialization, the memories are reset such as the channel setting, and the POWER ON total hours.
TV mode	VOL. DOWN (Minimum)	6	2 sec.	Can be checked of the INITIAL DATA of MEMORY IC. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
ALL mode	VOL. DOWN (Minimum)	8	2 sec.	Check of the SUM DATA, POWER ON total hours, MICON VERSION and DIGITAL TV MICON FIRMWARE on the screen. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
ALL mode	VOL. DOWN (Minimum)	9	2 sec.	Display of the Adjustment MENU on the screen. Refer to the "ELECTRICAL ADJUSTMENT" (On-Screen Display Adjustment).

## WHEN REPLACING EEPROM (MEMORY) IC

### CONFIRMATION OF CHECK SUM, POWER ON TOTAL HOURS, MICON VERSION AND DIGITAL TV MICON FIRMWARE

Initial total of MEMORY IC, POWER ON total hours, MICON VERSION and Digital TV MICON Firmware can be checked on the screen. Total hours are displayed in 16 system of notation.

**NOTE: If you set a factory initialization, the total hours is reset to "0".**

**Please refer to "CONFIRMATION OF INITIAL DATA" when SUM DATA is not corresponding.**

1. Turn on the POWER, and set to the TV mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button **(8)** on the remote control for more than 2 seconds.
4. After the confirmation of each check sum, POWER ON total hours, MICON VERSION and Digital TV MICON Firmware, turn off the power.

\*1 DVP1 is different according to each set.

INIT	: 6082	Initial setting data check sum.
VOLUME	: 2E25	VOLUME CURVE data check sum.
ROM	: 0000	Rom correction data check sum.
ADC	: BFDE	AD CONVERTER data check sum.
DVP1	: EE40 *1	SCALER data check sum.
DVP2	: D172	
PICENH	: 5626	DV1000 data check sum.
PDP ON	: 0001	POWER ON total hours.
		= (16 x 16 x 16 x thousands digit value)
		+ (16 x 16 x hundreds digit value)
		+ (16 x tens digit value)
		+ (ones digit value)
MICON Version	OEC7147A_079	

### CONFIRMATION OF INITIAL DATA

If a service repair is undertaken where it has been required to change the MEMORY IC, the following steps should be taken to ensure correct data settings while making reference to INITIAL SETTING TABLE (Attached "INITIAL DATA").

1. Turn on the POWER, and set to the TV mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button **(6)** on the remote control for more than 2 seconds.  
ADDRESS and DATA should appear as FIG 2.

	ADDRESS	DATA
INIT	0000	B4
PDP ON	0001	
OEC7147A_079		
DTV	d-I62155	
INIT	:0000	
ROM	: 0000	
VOLUME	: 2E25	

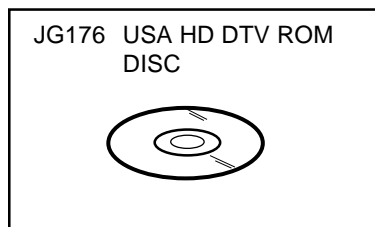
FIG. 2

4. ADDRESS is now selected and should "blink". Using the UP/DOWN button on the remote, step through the ADDRESS until required ADDRESS to be changed is reached.
5. Press RIGHT/LEFT button to select DATA. When DATA is selected, it will "blink".
6. Again, step through the DATA using UP/DOWN button until required DATA value has been selected.
7. Pressing RIGHT/LEFT button will take you back to ADDRESS for further selection if necessary.
8. Repeat steps 4 to 6 until all data has been checked.
9. When satisfied correct DATA has been entered, turn POWER off (return to STANDBY MODE) to finish DATA input.

**After the data input, set to the initializing of shipping.**

10. Turn POWER on.
11. Press both VOL. DOWN button on the set and Channel button **(1)** on the remote control for more than 2 seconds.
12. After the finishing of the initializing of shipping, the unit will turn off automatically.  
The unit will now have the correct DATA for the new MEMORY IC.

## RE-WRITE FOR DIGITAL SOFT FIRMWARE



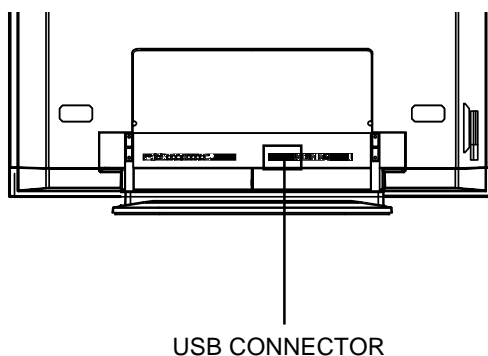
Ref. No.	Part No.	Parts Name	Remarks
JG176	APJG176095	USA HD DTV ROM DISC	Up-Date of the Firmware

**NOTE:** The operating manual for Re-writing is included in USA HD DTV ROM DISC (JG176).

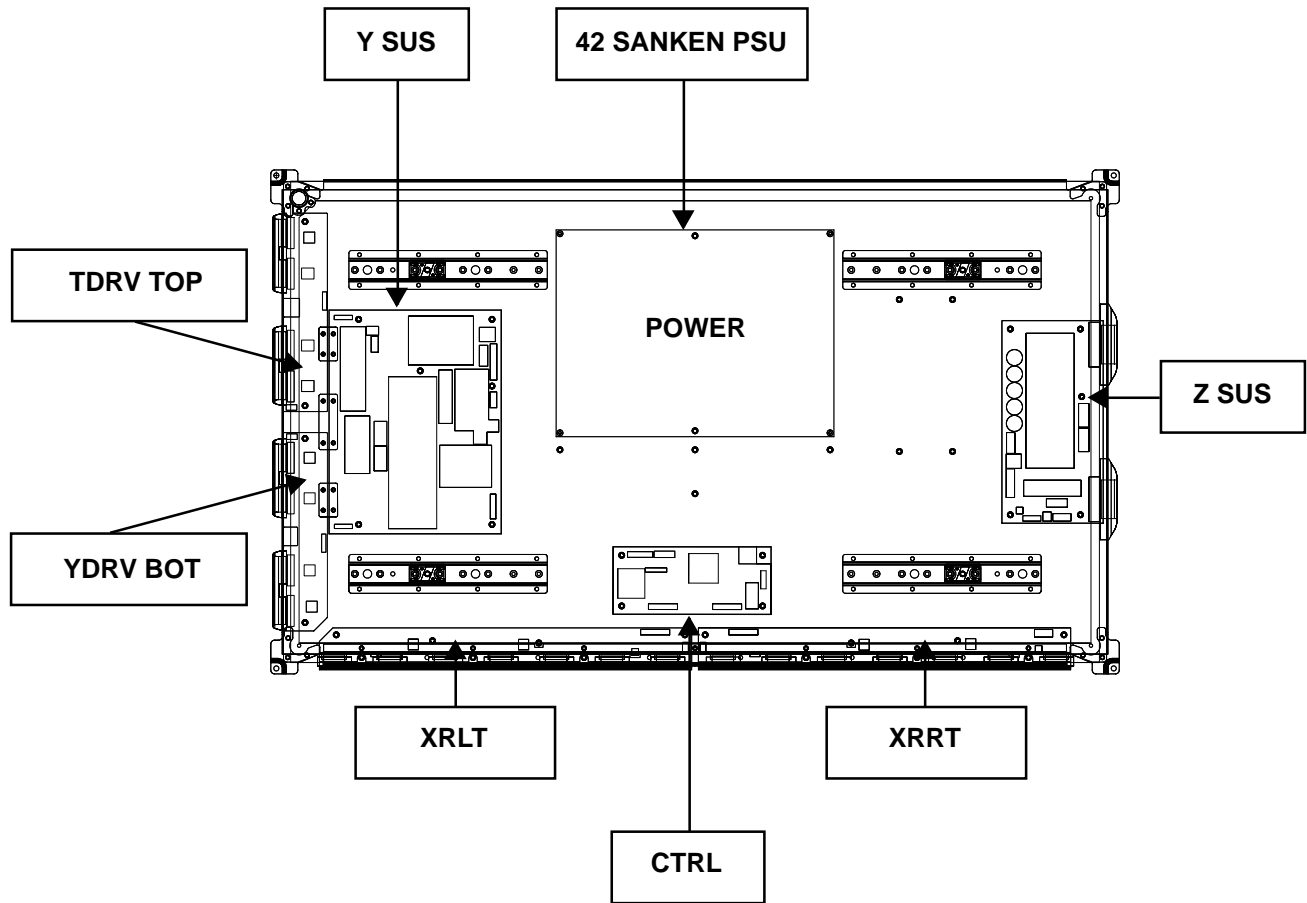
**Prepare the following tools for Up-Date of the Firmware.**

- 1 Computer of WINDOWS2000
- 2 USB Flash Memory (**Use only SanDisk Cruzer Mini USB Flash Drive 256Mb**)

### SET (REAR)



## FUNCTION OF PCB



42 SANKEN PSU	: A supplier which supplies voltage and current to each PCB and Panel.
Y SUS	: According to the timing provided from Panel Control, switches FETs and generates driving waveform signal which is provided to Y electrode through Scan Driver IC of TDRV TOP and TDRV BOT.
Z SUS	: According to the timing provided from Panel Control, switches FETs and generates driving waveform signal which is provided to Z electrode through Connector.
CTRL	: Controls Y electrode, Z electrode, and ADDRESS electrode.
XRLT	: Generates Address electrode and supplies to Address electrode by Driver IC.
XRRT	: Generates Address electrode and supplies to Address electrode by Driver IC.
TDRV TOP	: Generates Scan electrode and supplies to Y electrode by Driver IC.
TDRV BOT	: Generates Scan electrode and supplies to Y electrode by Driver IC.



# ELECTRICAL ADJUSTMENTS

## 1. ADJUSTMENT PROCEDURE

Read and perform these adjustments when repairing the circuits or replacing electrical parts or PCB assemblies.

### CAUTION

- Use an isolation transformer when performing any service on this chassis.
- When removing a PCB or related component, after unfastening or changing a wire, be sure to put the wire back in its original position.
- When you exchange IC and Transistor with a heat sink, apply silicon grease (**YG6260M**) on the contact section of the heat sink. Before applying new silicon grease, remove all the old silicon grease. (Old grease may cause damage to the IC and Transistor).

**Prepare the following measurement tools for electrical adjustments.**

1. Pattern Generator

## 2. BASIC ADJUSTMENTS

### On-Screen Display Adjustment

1. Set the VOLUME to minimum.
2. Press the VOL. DOWN button on the set and the channel button (**9**) on the remote control for more than 2 seconds to display adjustment mode on the screen as shown in **Fig. 2-1**.

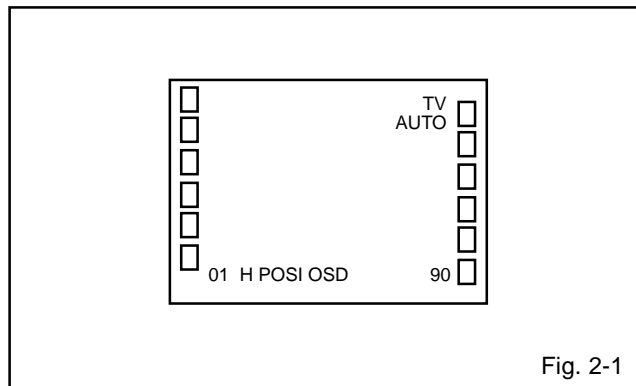


Fig. 2-1

3. Use the Channel UP/DOWN button or Channel button (**0-9**) on the remote control to select the options shown in **Fig. 2-2**.
4. Press the MENU button on the remote control to end the adjustments.
5. To display the adjustment screen for AV, YUV, HDMI and PC mode, press the INPUT button on the remote control to set to the AV, YUV, HDMI and PC mode. Press the VOL.DOWN button on the set and the channel (**9**) on the remote control for more than 2 seconds.

NO.	FUNCTION	NO.	FUNCTION
01	H POSI OSD	19	B DRIVE (W)
02	V POSI OSD	20	B CUT OFF (W)
03	R DRIVE (N)	22	H POSI 60Hz
04	R CUT OFF (N)	24	V POSI 60Hz
05	G DRIVE (N)	28	BRIGHT CENT
06	G CUT OFF (N)	29	BRIGHT MAX
07	B DRIVE (N)	30	BRIGHT MIN
08	B CUT OFF (N)	31	TINT
09	R DRIVE (C)	35	CONTRAST CENTER
10	R CUT OFF (C)	36	CONTRAST MAX
11	G DRIVE (C)	37	CONTRAST MIN
12	G CUT OFF (C)	38	COLOR CENT
13	B DRIVE (C)	39	COLOR MAX
14	B CUT OFF (C)	40	COLOR MIN
15	R DRIVE (W)		
16	R CUT OFF (W)		
17	G DRIVE (W)		
18	G CUT OFF (W)		

Fig. 2-2

### 2-1: CONTRAST MAX

1. Receive the monoscope pattern. (VIDEO Input)
2. Press the INPUT button on the remote control to set to the AV mode.
3. Activate the adjustment mode display of **Fig. 2-1** and press the channel button (**36**) on the remote control to select "CONTRAST MAX".
4. Press the VOL UP/DOWN button on the remote control until the contrast step No. becomes "155".
5. Check if the picture is normal.
6. Receive the monoscope pattern. (RF Input)
7. Press the INPUT button on the remote control to set to the TV mode.
8. Activate the adjustment mode display of **Fig. 2-1** and press the channel button (**36**) on the remote control to select "CONTRAST MAX".
9. Press the VOL UP/DOWN button on the remote control until the contrast step No. becomes "145".
10. Check if the picture is normal.
11. Receive the digital broadcast. (RF Input)
12. Perform the above adjustments 3 and 5.
13. Playback the DVD(480i) disc. (COMPONENT Input)
14. Press the INPUT button on the remote control to set to the YUV mode.
15. Activate the adjustment mode display of **Fig. 2-1** and press the channel button (**36**) on the remote control to select "CONTRAST MAX".
16. Press the VOL UP/DOWN button on the remote control until the contrast step No. becomes "162".
17. Check if the picture is normal.
18. Playback the DVD(480i) disc. (HDMI Input)
19. Press the INPUT button on the remote control to set to the HDMI mode.
20. Activate the adjustment mode display of **Fig. 2-1** and press the channel button (**36**) on the remote control to select "CONTRAST MAX".
21. Press the VOL UP/DOWN button on the remote control until the contrast step No. becomes "130".
22. Check if the picture is normal.

# ELECTRICAL ADJUSTMENTS

## 2-2: WHITE BALANCE

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the gray scale pattern from the Pattern Generator.
3. Press the INPUT button on the remote control to set to the AV mode.
4. Using the remote control, set the brightness and contrast to normal position.
5. Activate the adjustment mode display of **Fig. 2-1** and press the channel button **(03)** on the remote control to select "R DRIVE (N)".
6. Press the CH. UP/DOWN button on the remote control to select the "R CUTOFF (N)", "B.DRIVE(N)", "B CUTOFF (N)", "R DRIVE (C)", "R CUTOFF (C)", "B.DRIVE(C)", "B CUTOFF (C)", "R DRIVE (W)", "R CUTOFF (W)", "B.DRIVE(W)" and "B CUTOFF (W)".
7. Adjust the VOL. UP/DOWN button on the remote control to whiten the R CUTOFF (N), B.DRIVE(N), B CUTOFF (N), R DRIVE (C), R CUTOFF (C), B.DRIVE(C), B CUTOFF (C), R DRIVE (W), R CUTOFF (W), B.DRIVE(W) and B CUTOFF (W) at each step tone sections equally.
8. Perform the above adjustments 6 and 7 until the white color is looked like a white.

## 2-3: BRIGHT CENT

1. Receive the monoscope pattern. (VIDEO Input)
2. Press the INPUT button on the remote control to set to the AV mode.
3. Set the screen mode to FULL.
4. Using the remote control, set the brightness and contrast to normal position.
5. Activate the adjustment mode display of **Fig. 2-1** and press the channel button **(28)** on the remote control to select "BRIGHT CENT".
6. Press the VOL. UP/DOWN button on the remote control until the white 8.1% is starting to be visible.
7. Receive the monoscope pattern. (RF Input)
8. Press the INPUT button on the remote control to set to the TV mode. Then perform the above adjustments 4~6.
9. Receive the digital broadcast. (RF Input)
10. Perform the above adjustments 4~6.
11. Playback the DVD(480i) disc. (COMPONENT Input)
12. Press the INPUT button on the remote control to set to the YUV mode. Then perform the above adjustments 4~6.
13. Playback the DVD(480i) disc. (HDMI Input)
14. Press the INPUT button on the remote control to set to the HDMI mode. Then perform the above adjustments 4~6.

## ELECTRICAL ADJUSTMENTS

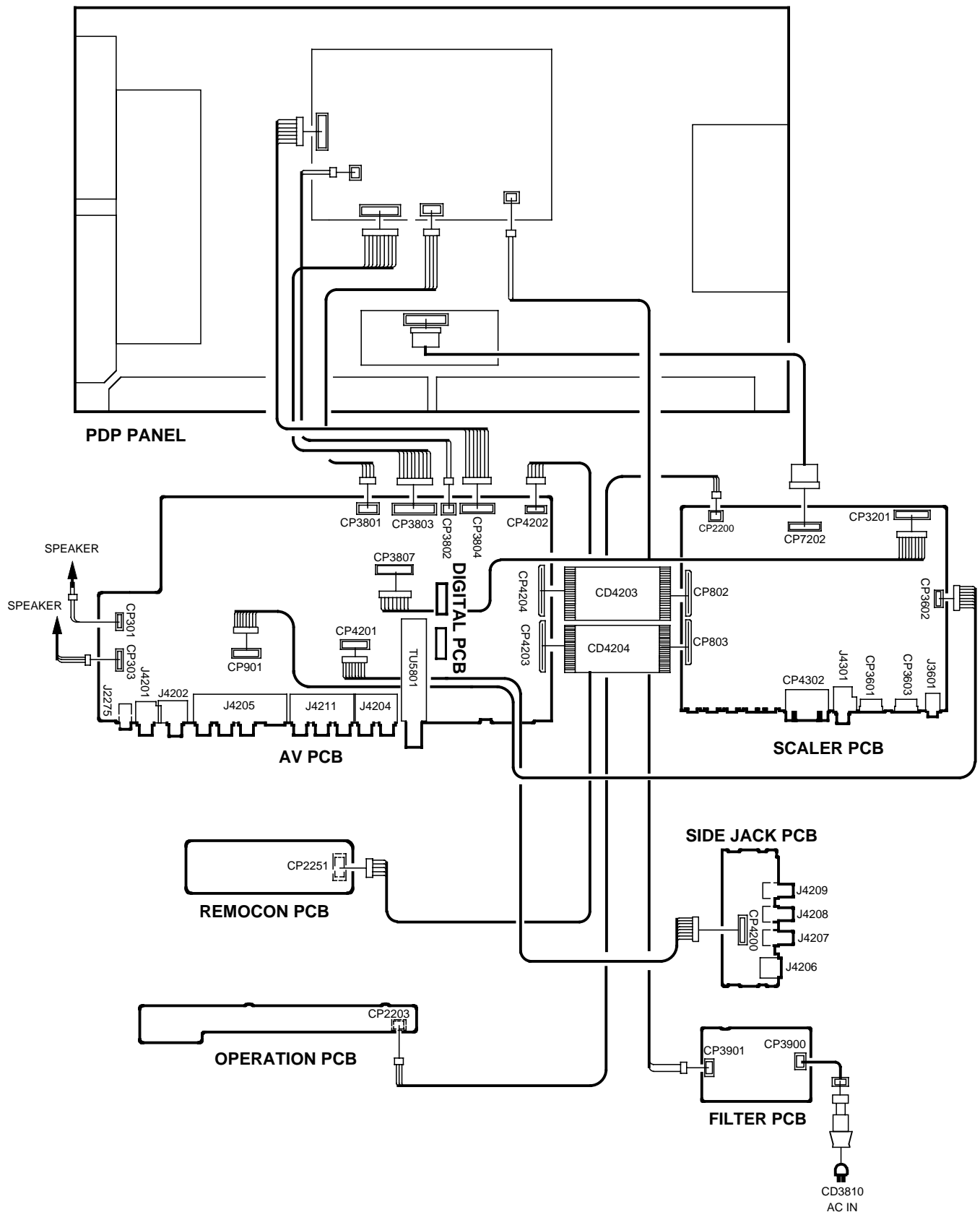
### 2-4: Confirmation of Fixed Value (Step No.)

Please check if the fixed values of each the adjustment items are set correctly referring below. (TV/AV/YUV/HD-MI/PC/DTV)

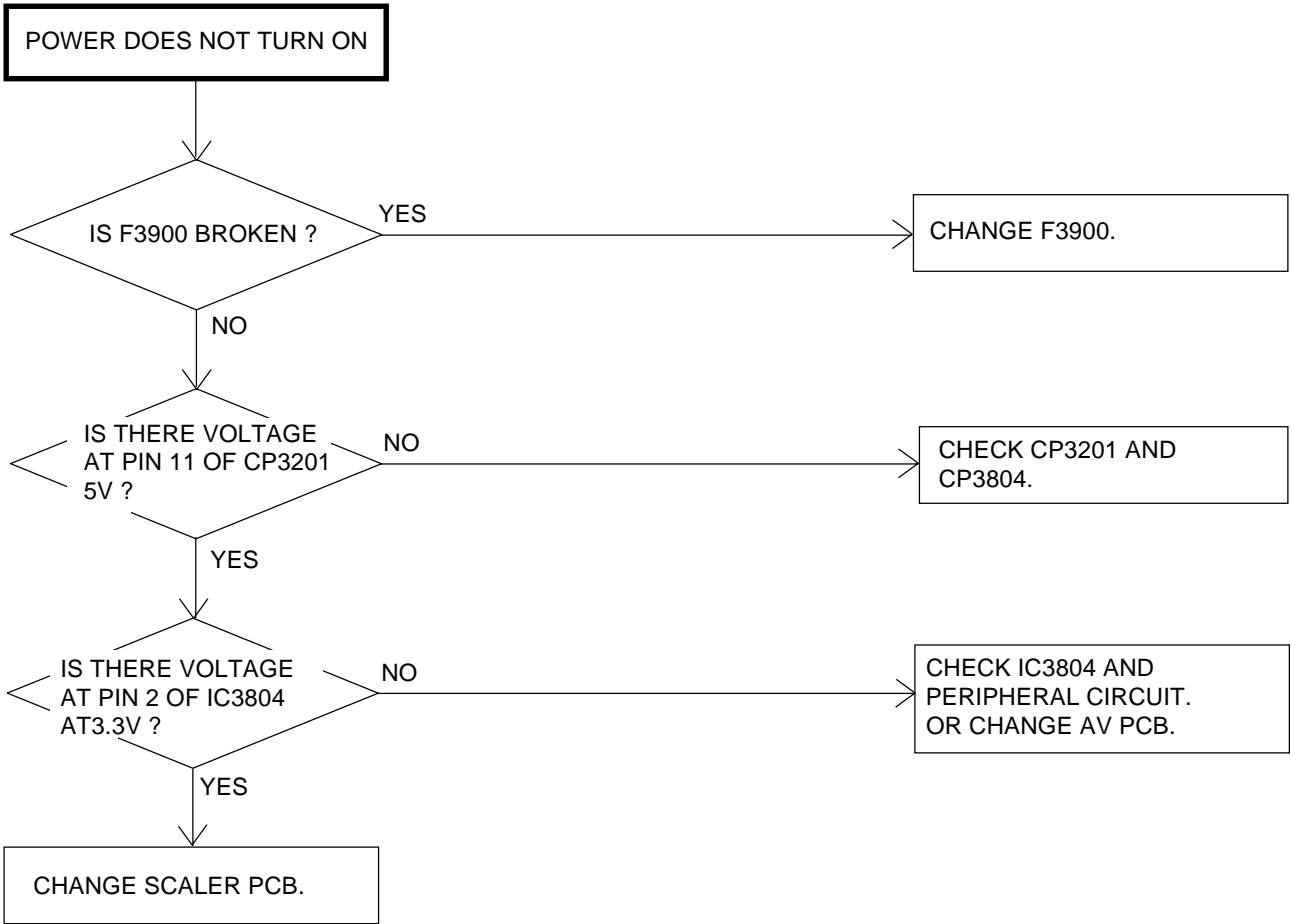
NO.	FUNCTION	TV	AV	YUV				HD-MI				PC								DTV
				480i	480p	720p	1080i	480i	480p	720p	1080i	VGA 60*480	SVGA 800*600	XGA 1024*768	WXGA		WVGA 848*480	WXGA 1360*768		
															1280*768	1280*720				
Step No.																				
1	H POSI OSD	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	180	
2	V POSI OSD	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	133	
3	R DRIVE (N)	133	133	133	133	133	133	133	133	133	133	120	120	120	120	120	120	120	133	
4	R CUT OFF (N)	129	129	129	129	129	129	129	129	129	129	...	...	...	...	...	...	...	129	
5	G DRIVE (N)	128	128	128	128	128	128	128	128	128	128	122	122	122	122	122	122	122	128	
6	G CUT OFF (N)	128	128	128	128	128	128	128	128	128	128	...	...	...	...	...	...	...	128	
7	B DRIVE (N)	116	116	116	116	116	116	116	116	116	116	128	128	128	128	128	128	128	116	
8	B CUT OFF (N)	135	135	135	135	135	135	135	135	135	135	...	...	...	...	...	...	...	135	
9	R DRIVE (C)	123	123	123	123	123	123	123	123	123	123	...	...	...	...	...	...	...	123	
10	R CUT OFF (C)	130	130	130	130	130	130	130	130	130	130	...	...	...	...	...	...	...	130	
11	G DRIVE (C)	128	128	128	128	128	128	128	128	128	128	...	...	...	...	...	...	...	128	
12	G CUT OFF (C)	128	128	128	128	128	128	128	128	128	128	...	...	...	...	...	...	...	128	
13	B DRIVE (C)	124	124	124	124	124	124	124	124	124	124	...	...	...	...	...	...	...	124	
14	B CUT OFF (C)	134	134	134	134	134	134	134	134	134	134	...	...	...	...	...	...	...	134	
15	R DRIVE (W)	135	135	135	135	135	135	135	135	135	135	...	...	...	...	...	...	...	135	
16	R CUT OFF (W)	129	129	129	129	129	129	129	129	129	129	...	...	...	...	...	...	...	129	
17	G DRIVE (W)	128	128	128	128	128	128	128	128	128	128	...	...	...	...	...	...	...	128	
18	G CUT OFF (W)	128	128	128	128	128	128	128	128	128	128	...	...	...	...	...	...	...	128	
19	B DRIVE (W)	107	107	107	107	107	107	107	107	107	107	...	...	...	...	...	...	...	107	
20	B CUT OFF (W)	137	137	137	137	137	137	137	137	137	137	...	...	...	...	...	...	...	137	
22	H POSI 60Hz	282	282	282	142	312	260	278	140	268	218	47	214	158	190	189	110	365	294	
24	V POSI 60Hz	24	24	24	24	24	24	24	24	24	24	22	22	22	20	20	22	20	24	
28	BRIGHT CENT	107	107	107	115	115	115	95	95	95	95	50	50	50	50	50	50	50	115	
29	BRIGHT MAX	185	185	185	185	185	185	185	185	185	185	100	100	100	100	100	100	100	185	
30	BRIGHT MIN	60	60	60	60	60	60	60	60	60	60	30	30	30	30	30	30	30	60	
31	TINT	117	121	121	126	126	126	123	123	123	123	...	...	...	...	...	...	...	137	
35	CONTRAST CENTER	128	128	128	128	128	128	128	128	128	128	130	130	130	130	130	130	130	128	
36	CONTRAST MAX	145	155	162	155	155	155	130	130	130	130	150	150	150	150	150	150	150	155	
37	CONTRAST MIN	70	70	70	70	70	70	70	70	70	70	90	90	90	90	90	90	90	70	
38	COLOR CENT	80	88	106	56	56	56	78	78	78	78	...	...	...	...	...	...	...	60	
39	COLOR MAX	180	180	180	180	180	180	180	180	180	180	...	...	...	...	...	...	...	180	
40	COLOR MIN	0	0	0	0	0	0	0	0	0	0	...	...	...	...	...	...	...	0	

# ELECTRICAL ADJUSTMENTS

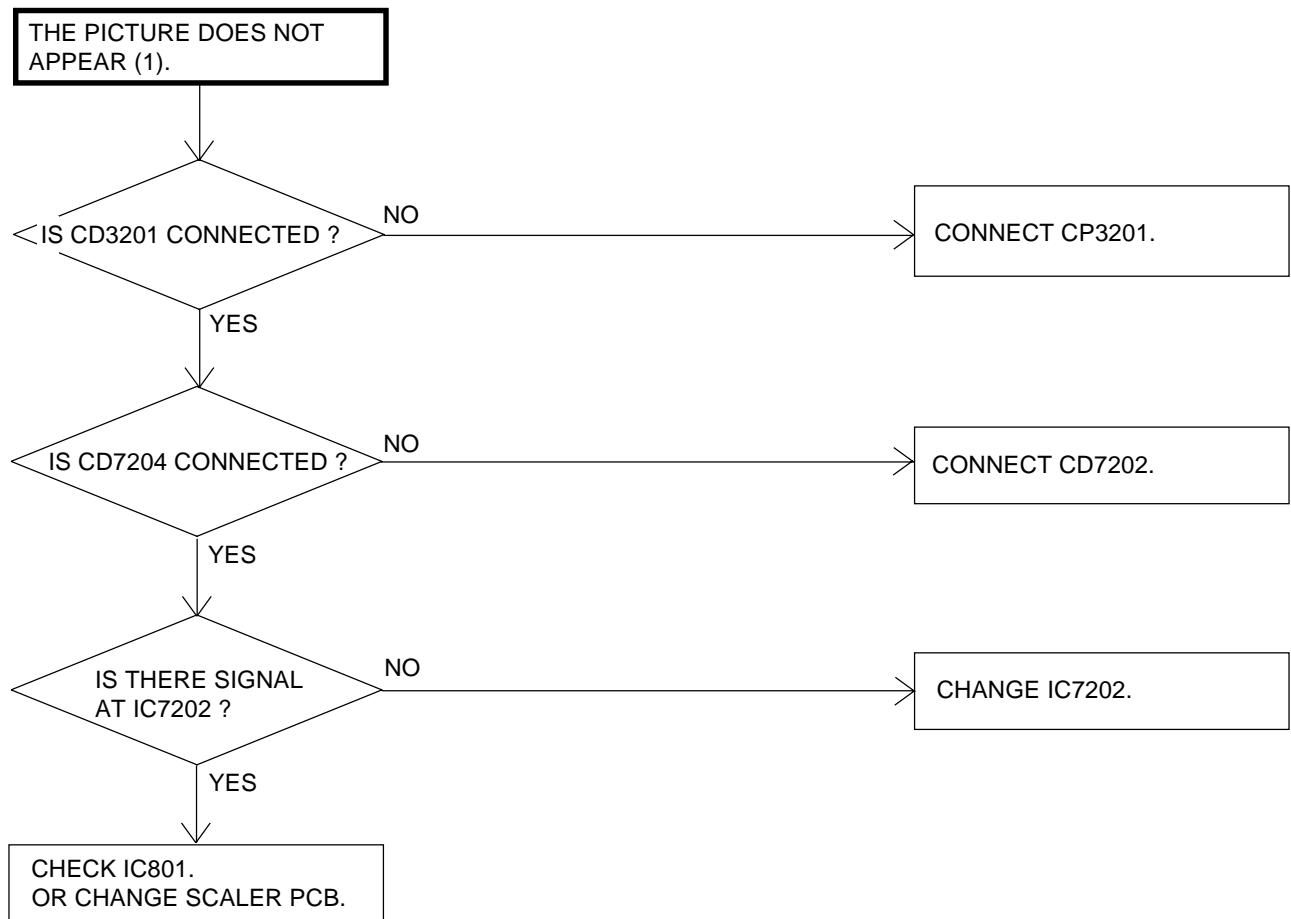
## 3. ELECTRICAL ADJUSTMENT PARTS LOCATION GUIDE (WIRING CONNECTION)



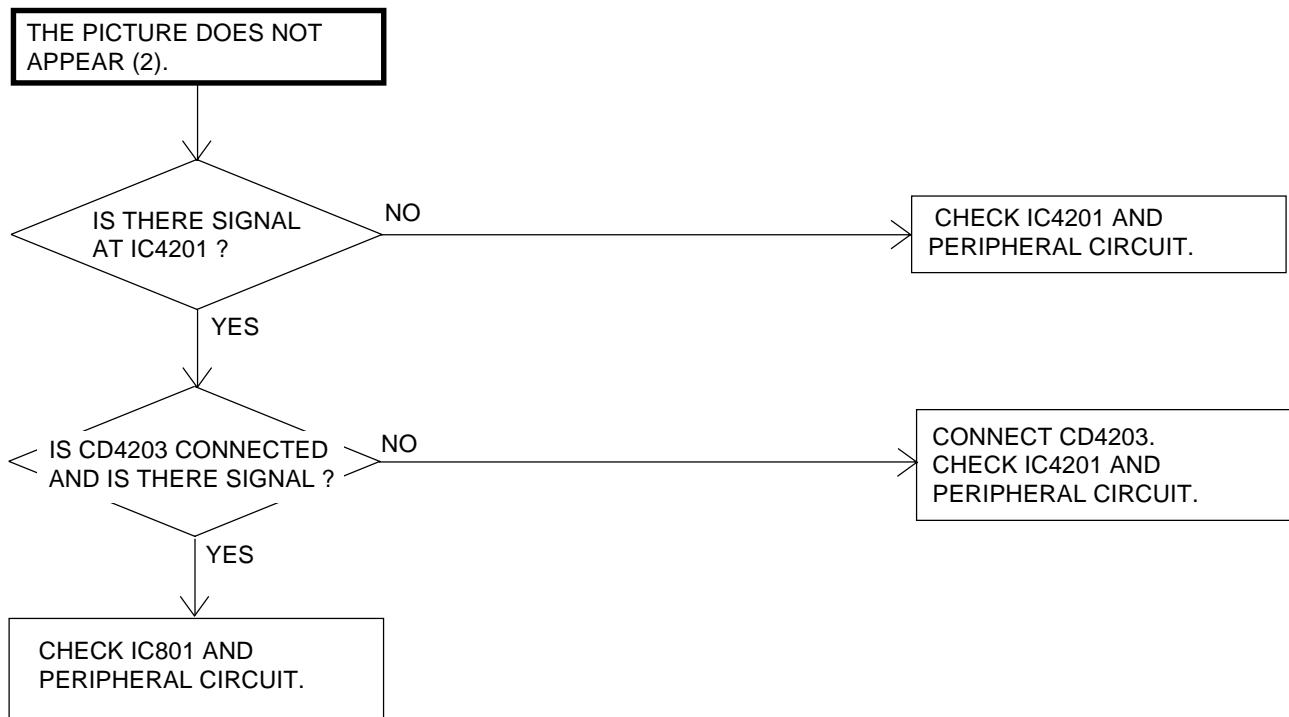
# TROUBLESHOOTING GUIDE



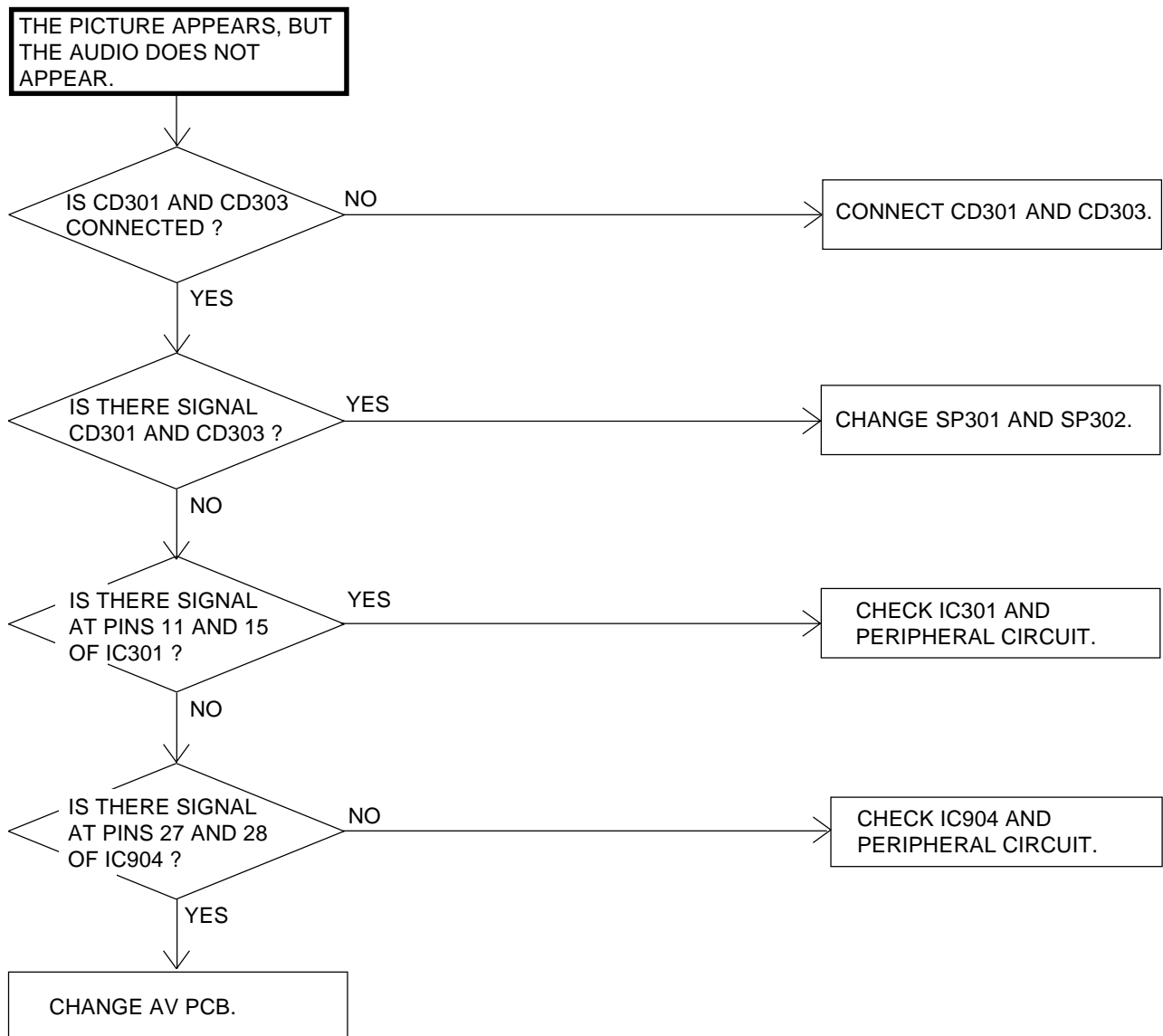
## TROUBLESHOOTING GUIDE



## TROUBLESHOOTING GUIDE

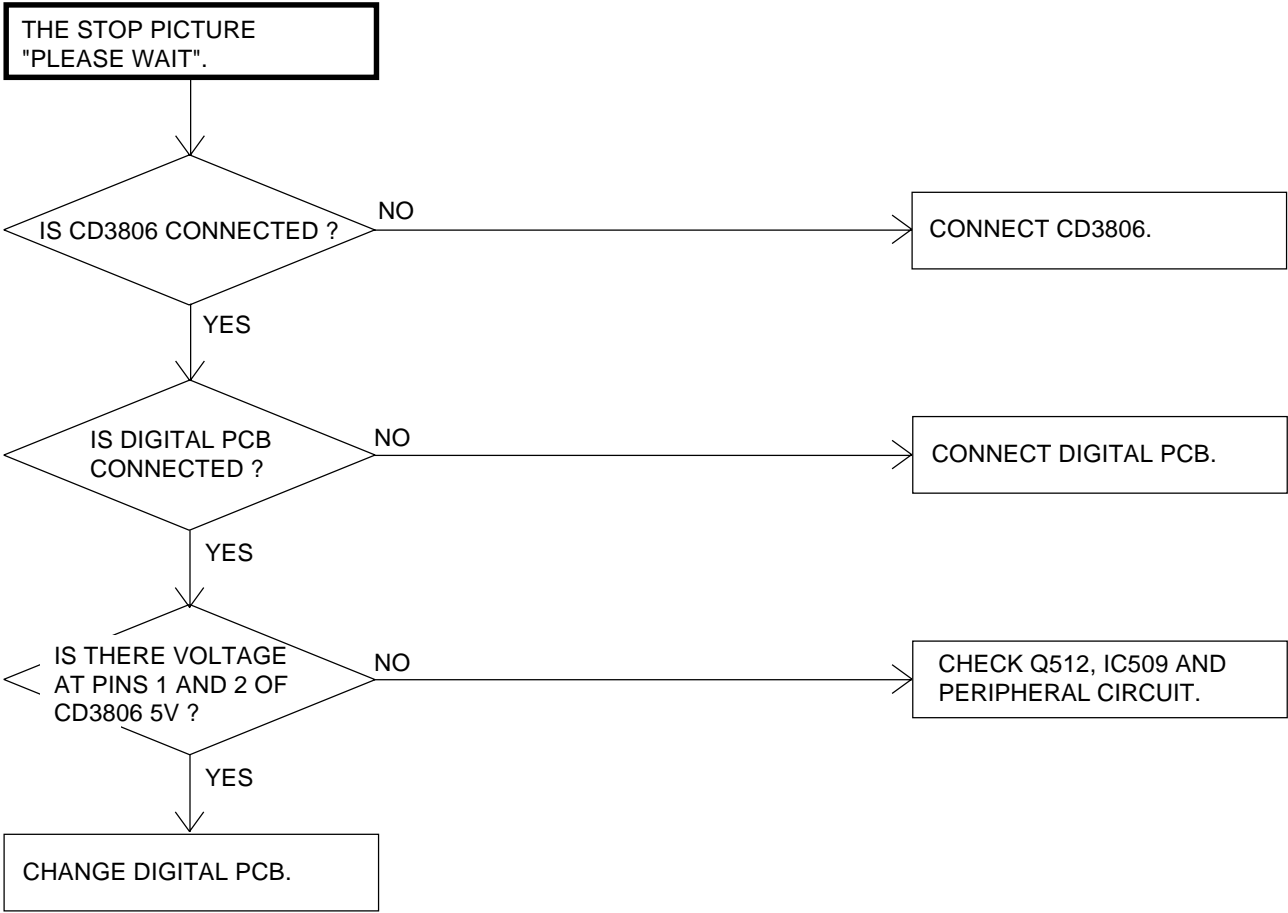


## TROUBLESHOOTING GUIDE

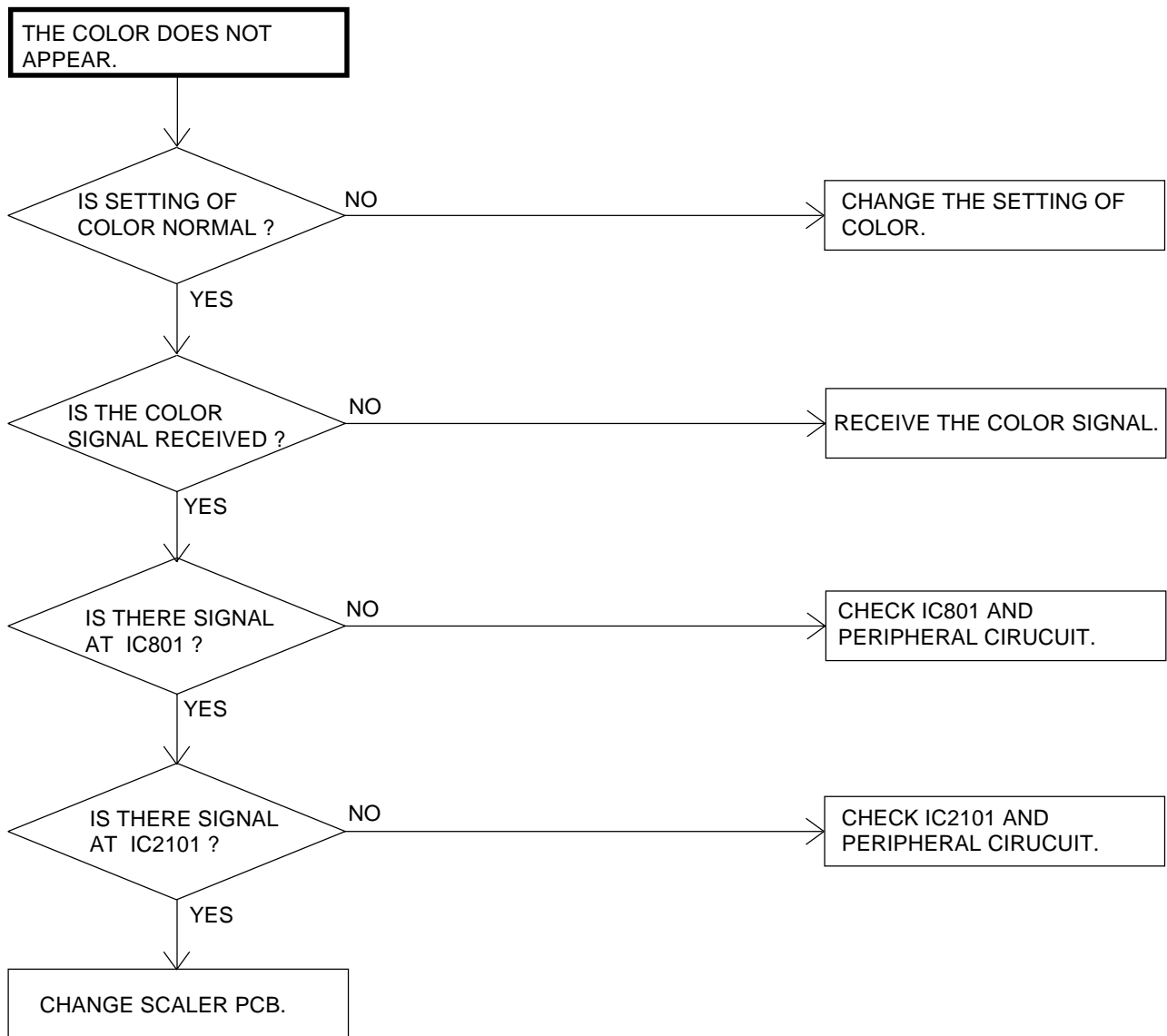




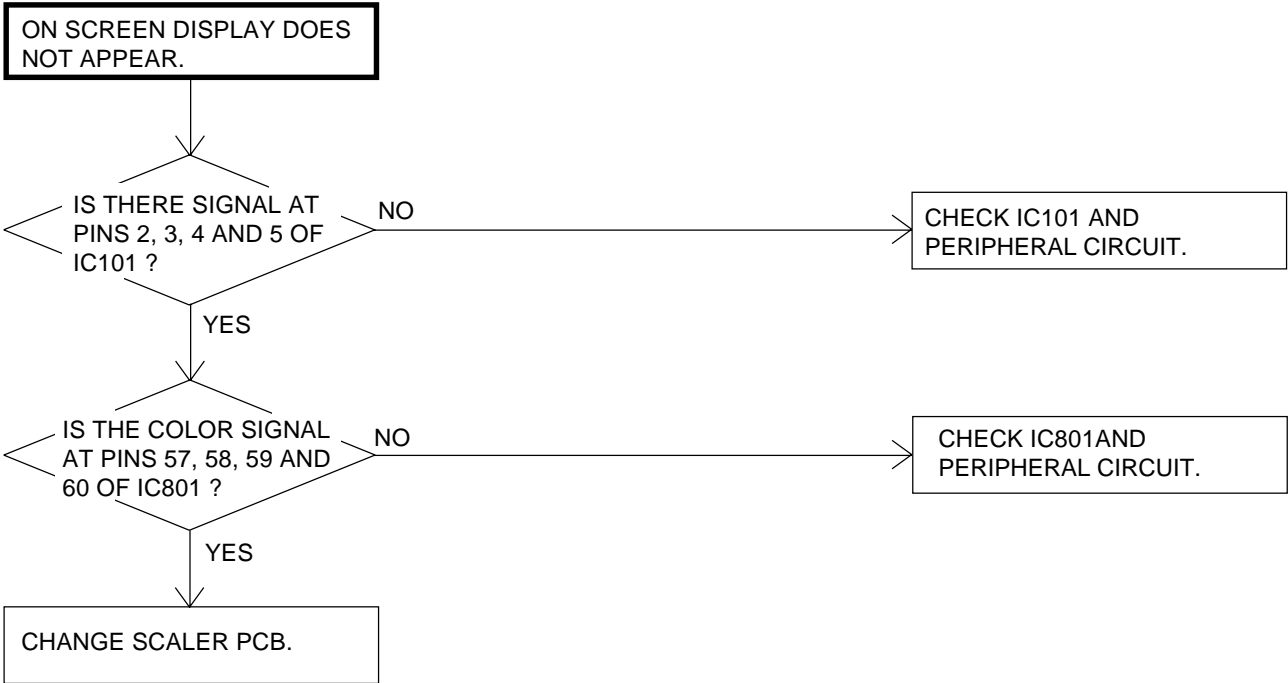
# TROUBLESHOOTING GUIDE



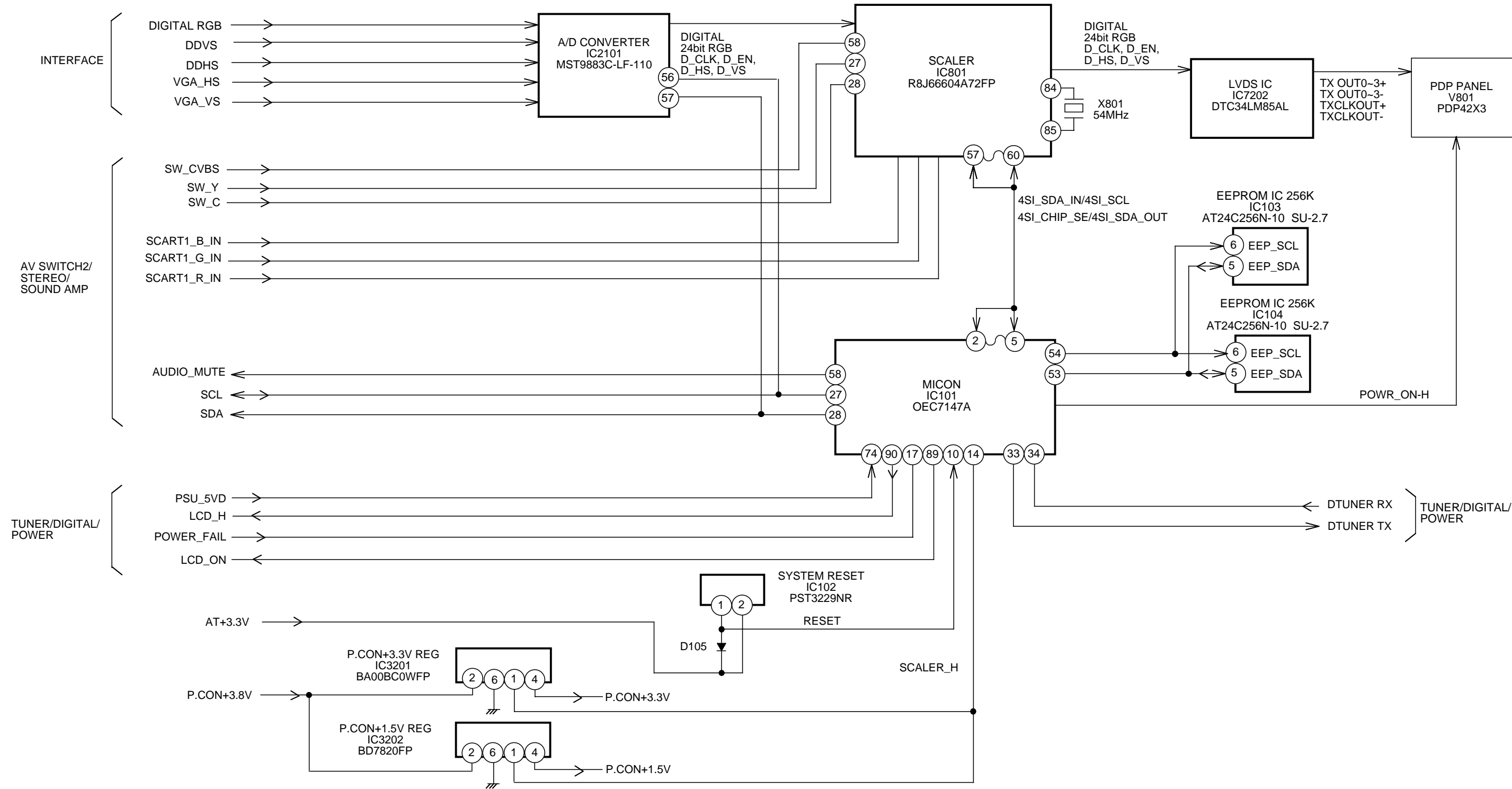
## TROUBLESHOOTING GUIDE



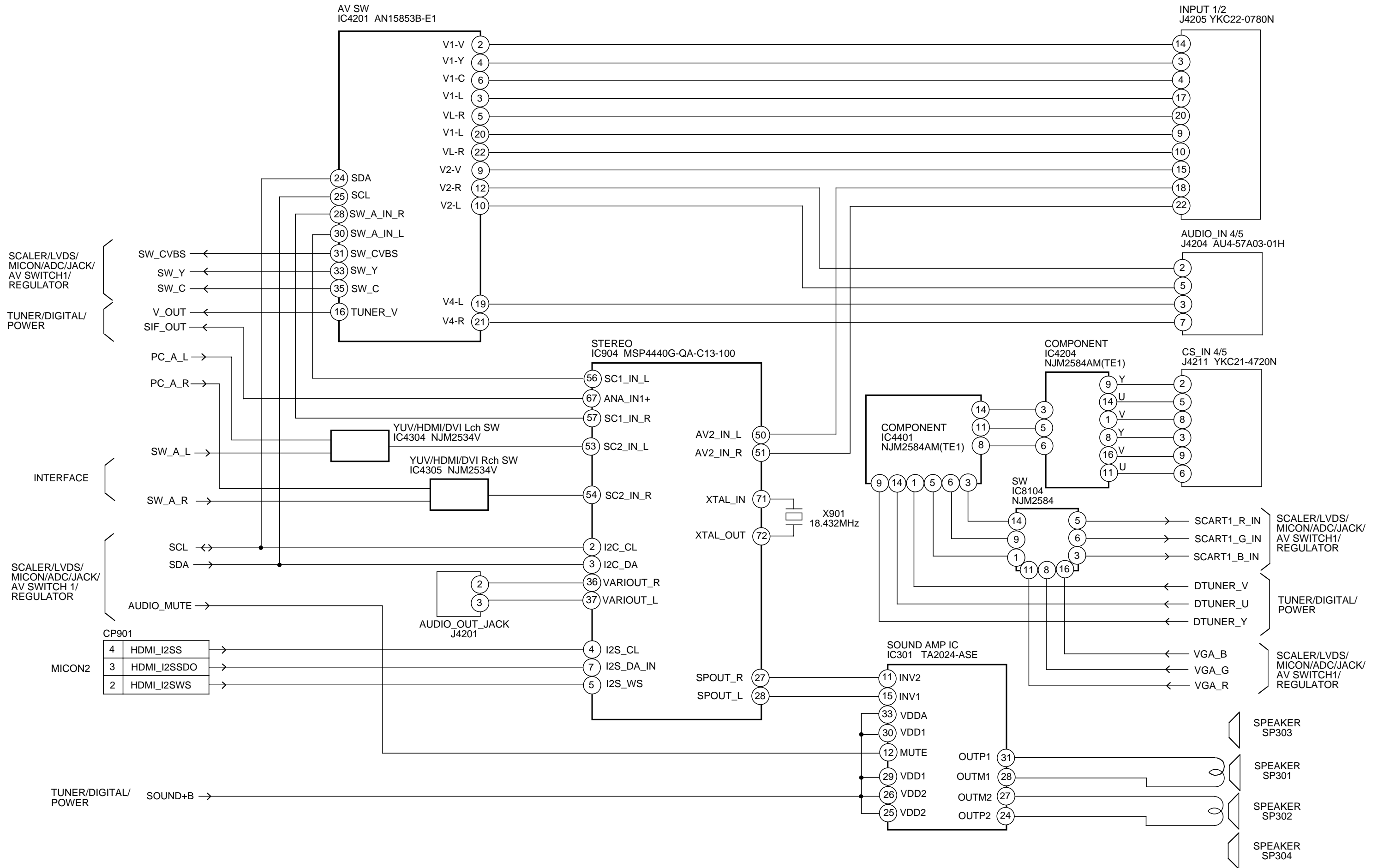
# TROUBLESHOOTING GUIDE



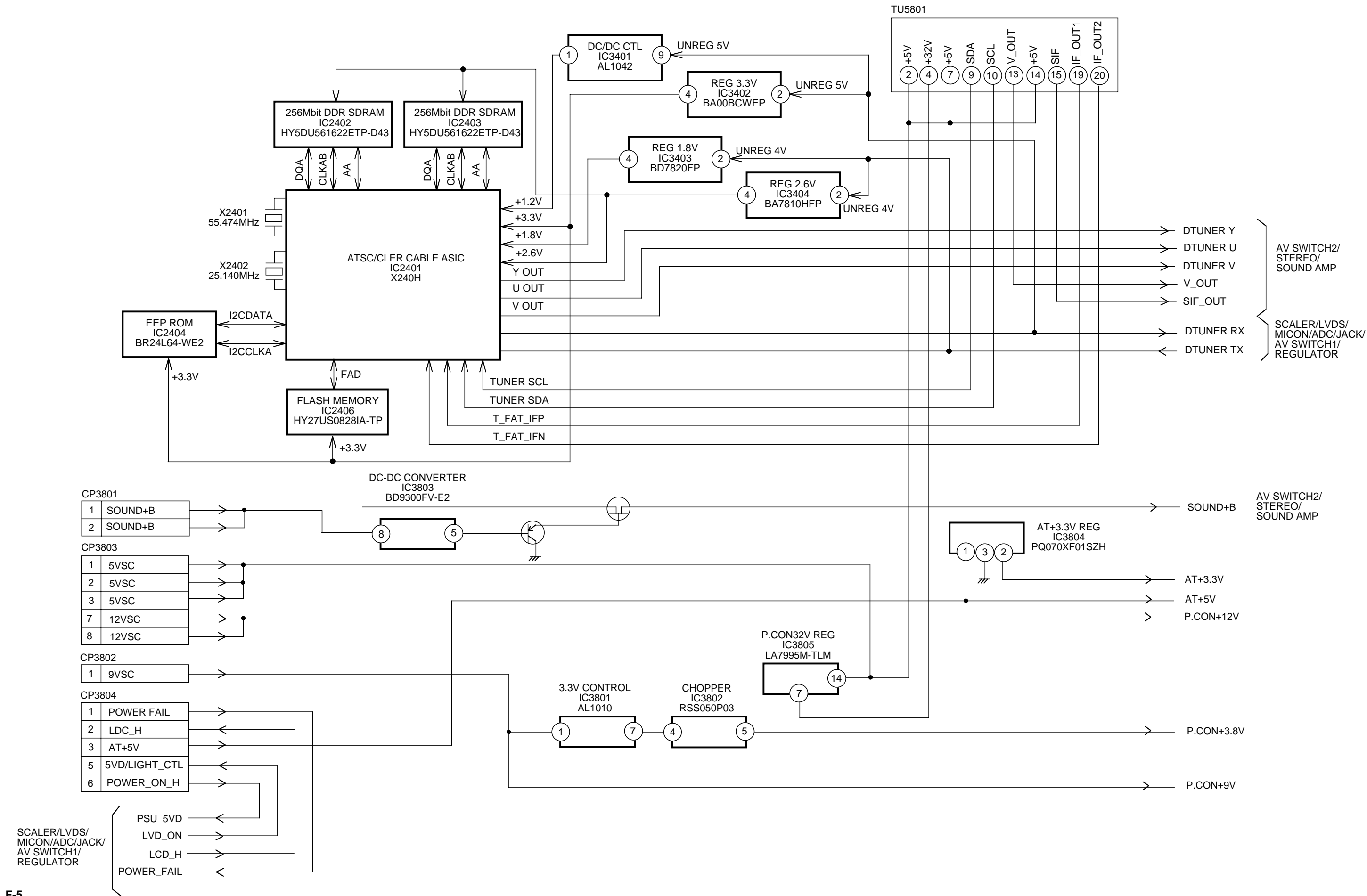
SCALER/LVDS/MICON/ADC/JACK/AV SWITCH1/REGULATOR BLOCK DIAGRAM



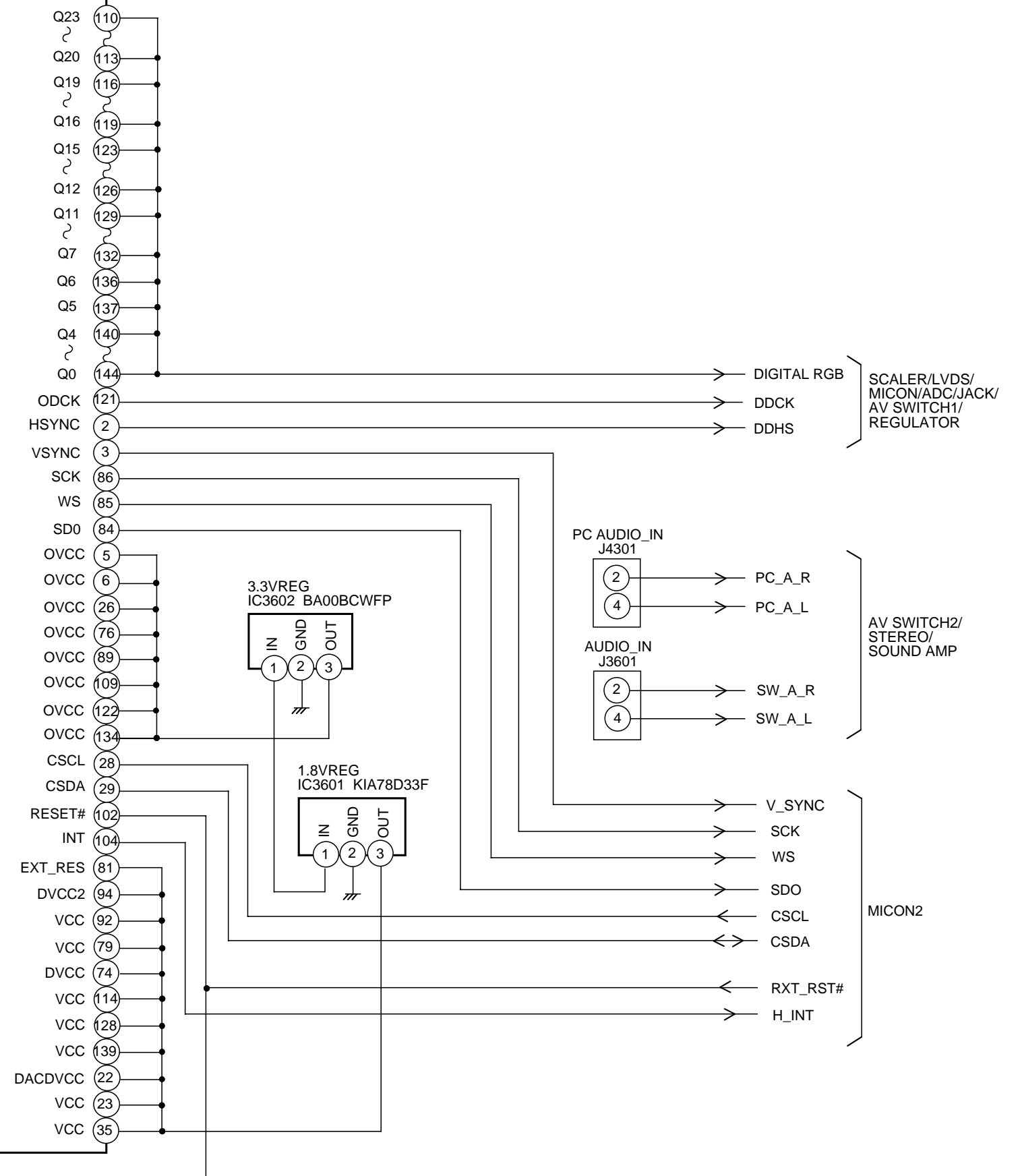
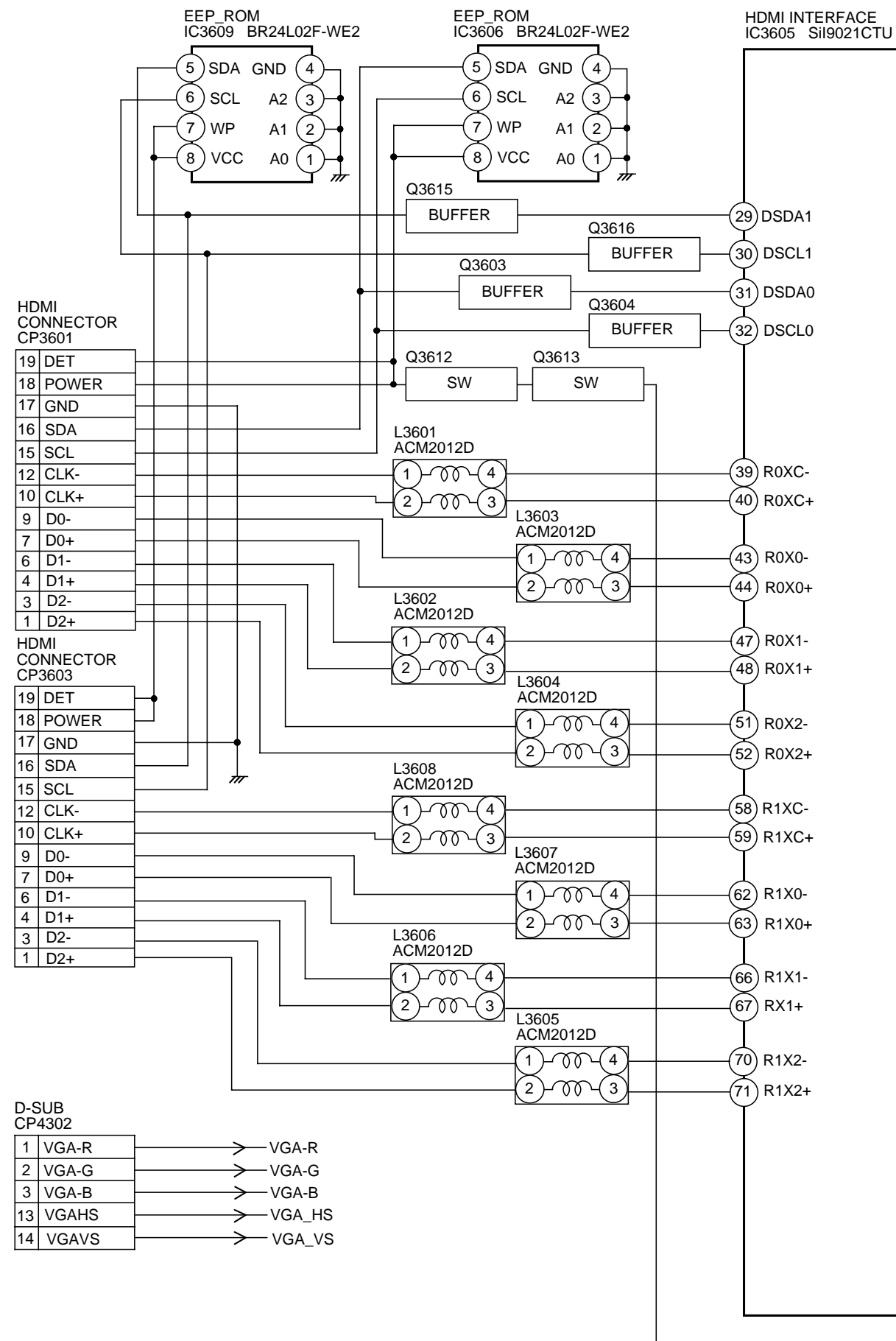
AV SWITCH2/STEREO/SOUND AMP BLOCK DIAGRAM



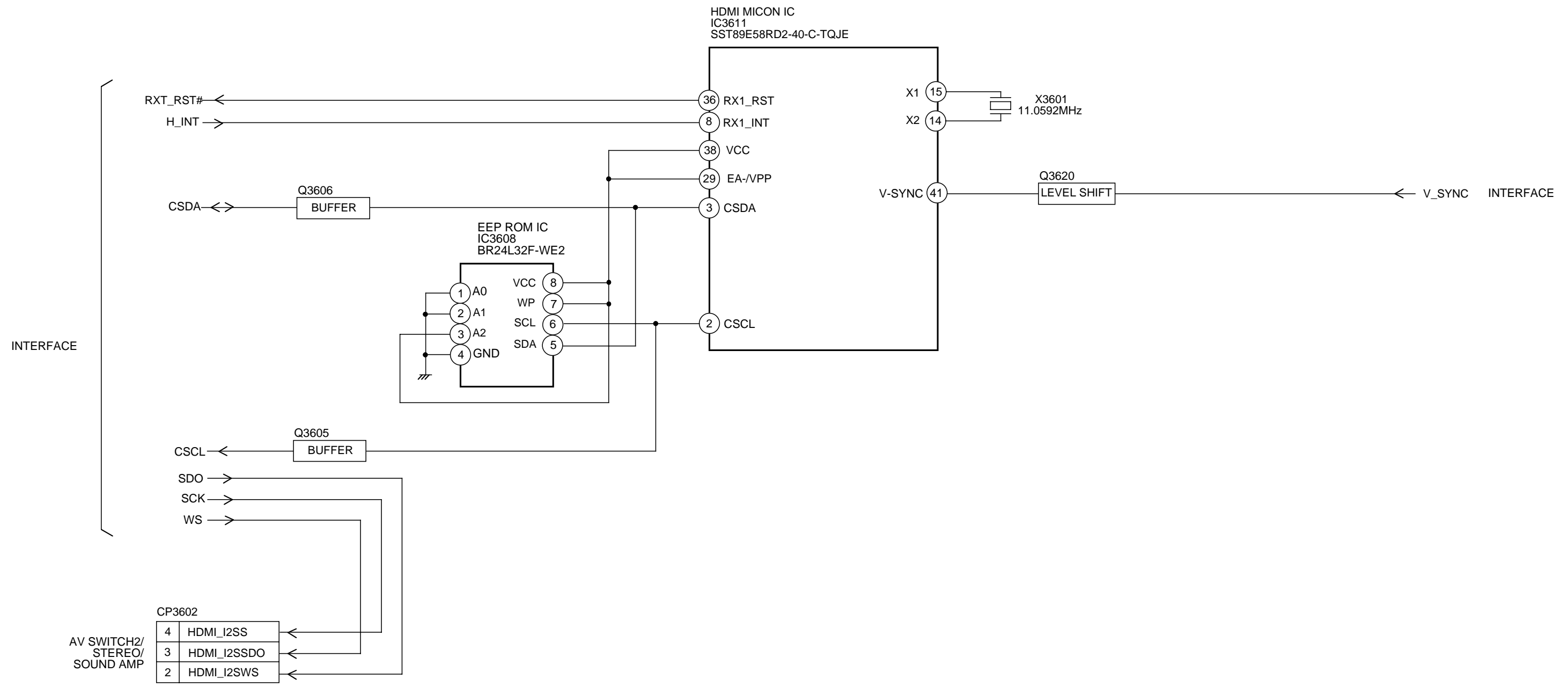
TUNER/DIGITAL/POWER BLOCK DIAGRAM



## INTERFACE BLOCK DIAGRAM



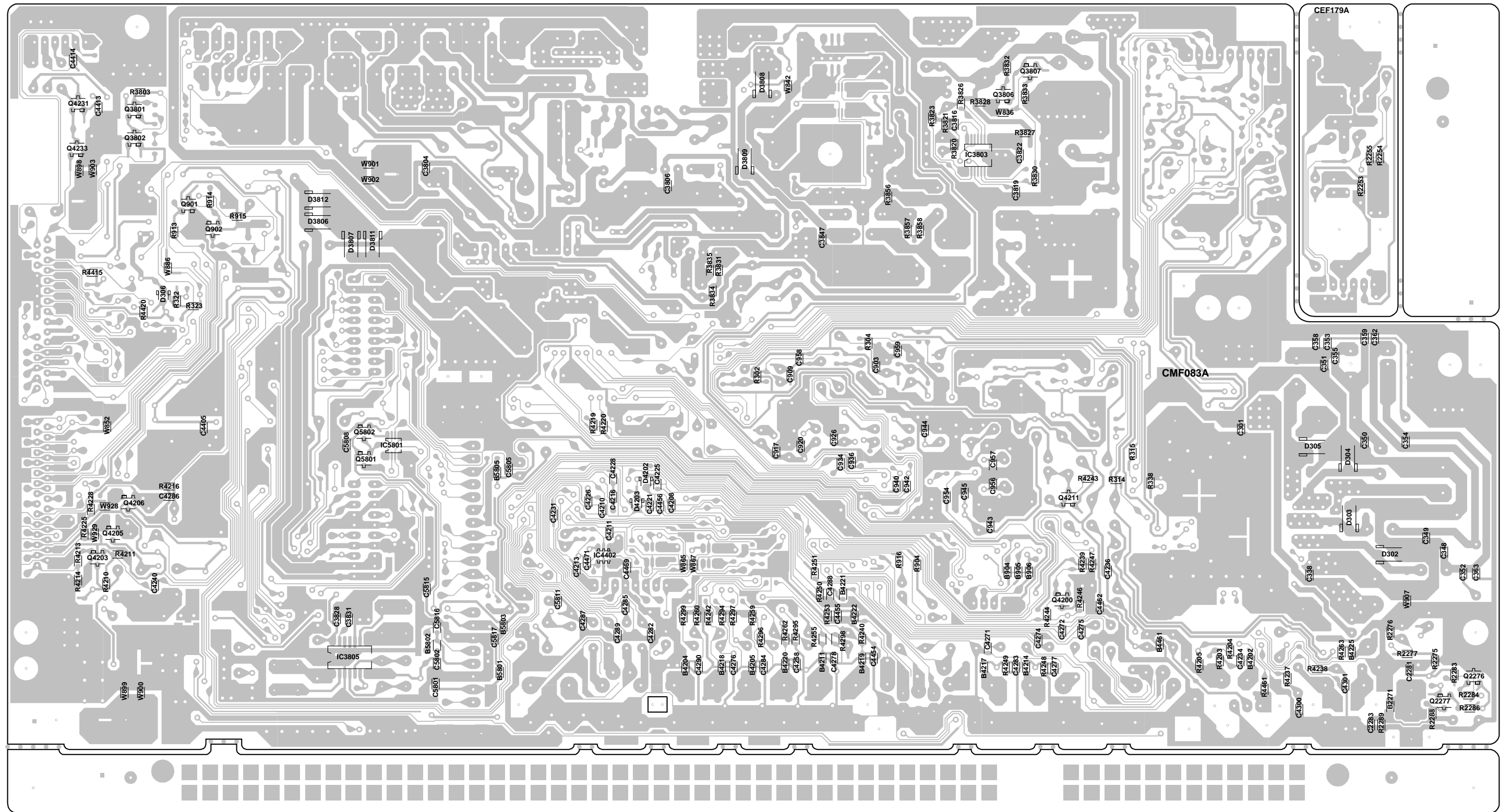
MICON2 BLOCK DIAGRAM







# PRINTED CIRCUIT BOARDS AV/REMOCON (BOTTOM SIDE)

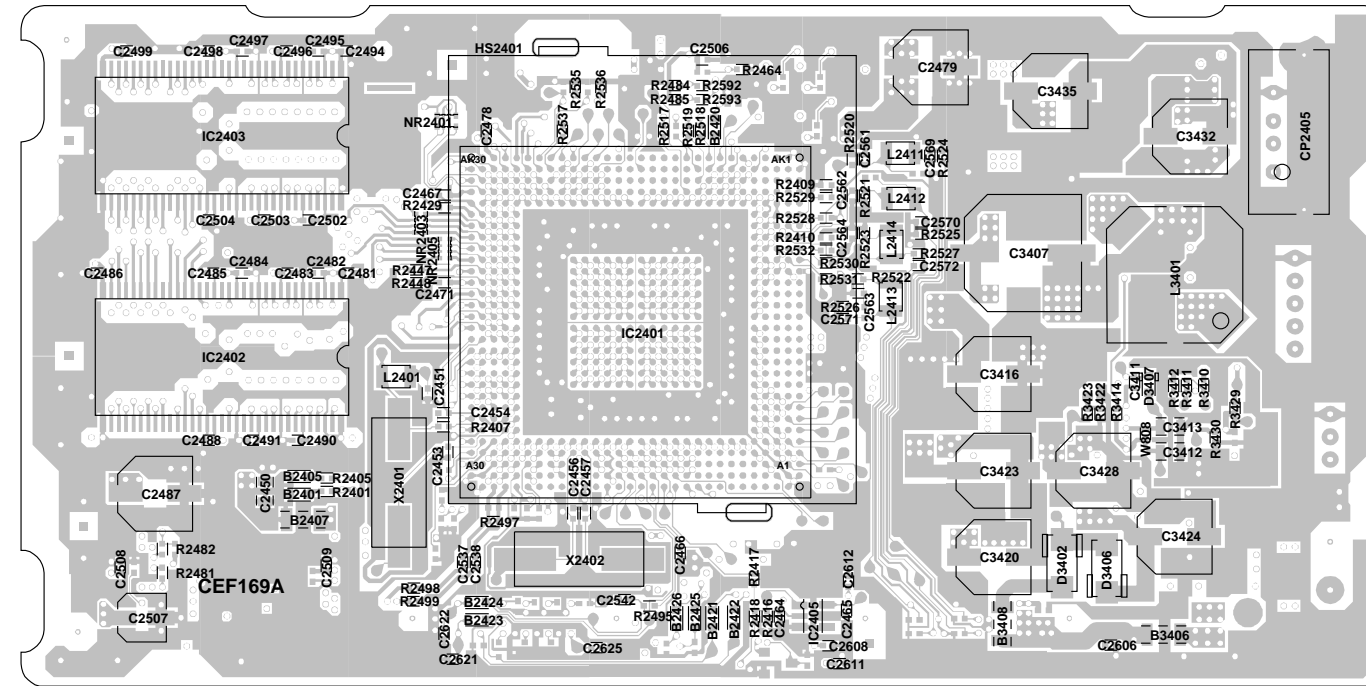




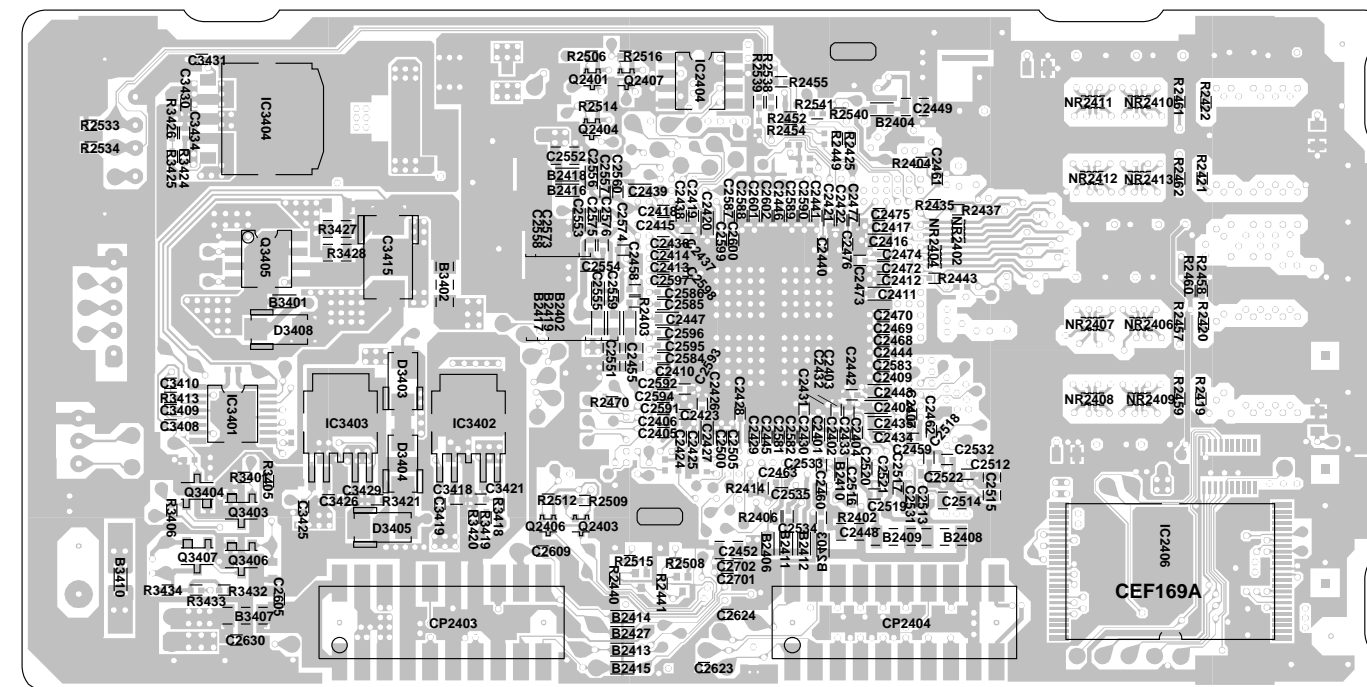


## PRINTED CIRCUIT BOARDS

### DIGITAL (TOP SIDE)

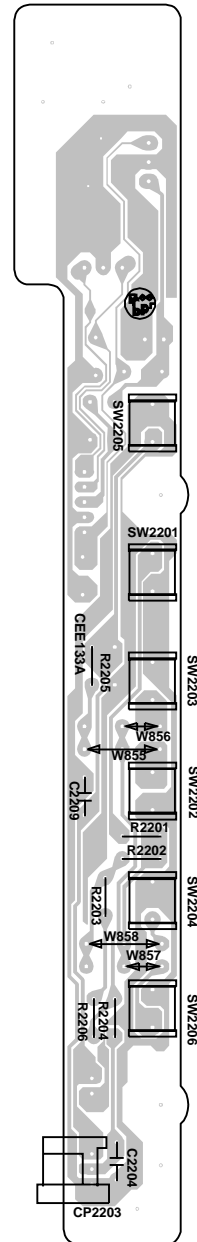


### DIGITAL (BOTTOM SIDE)

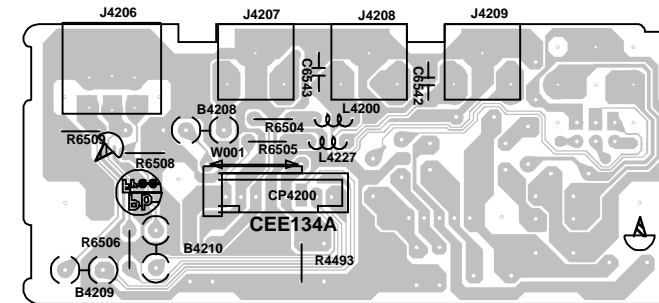


## PRINTED CIRCUIT BOARDS

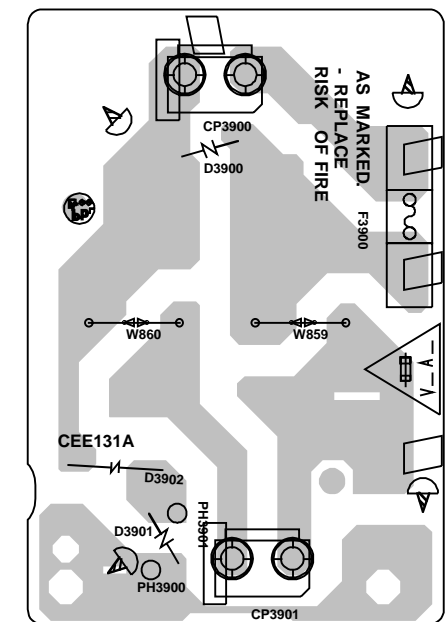
## OPERATION SOLDER SIDE



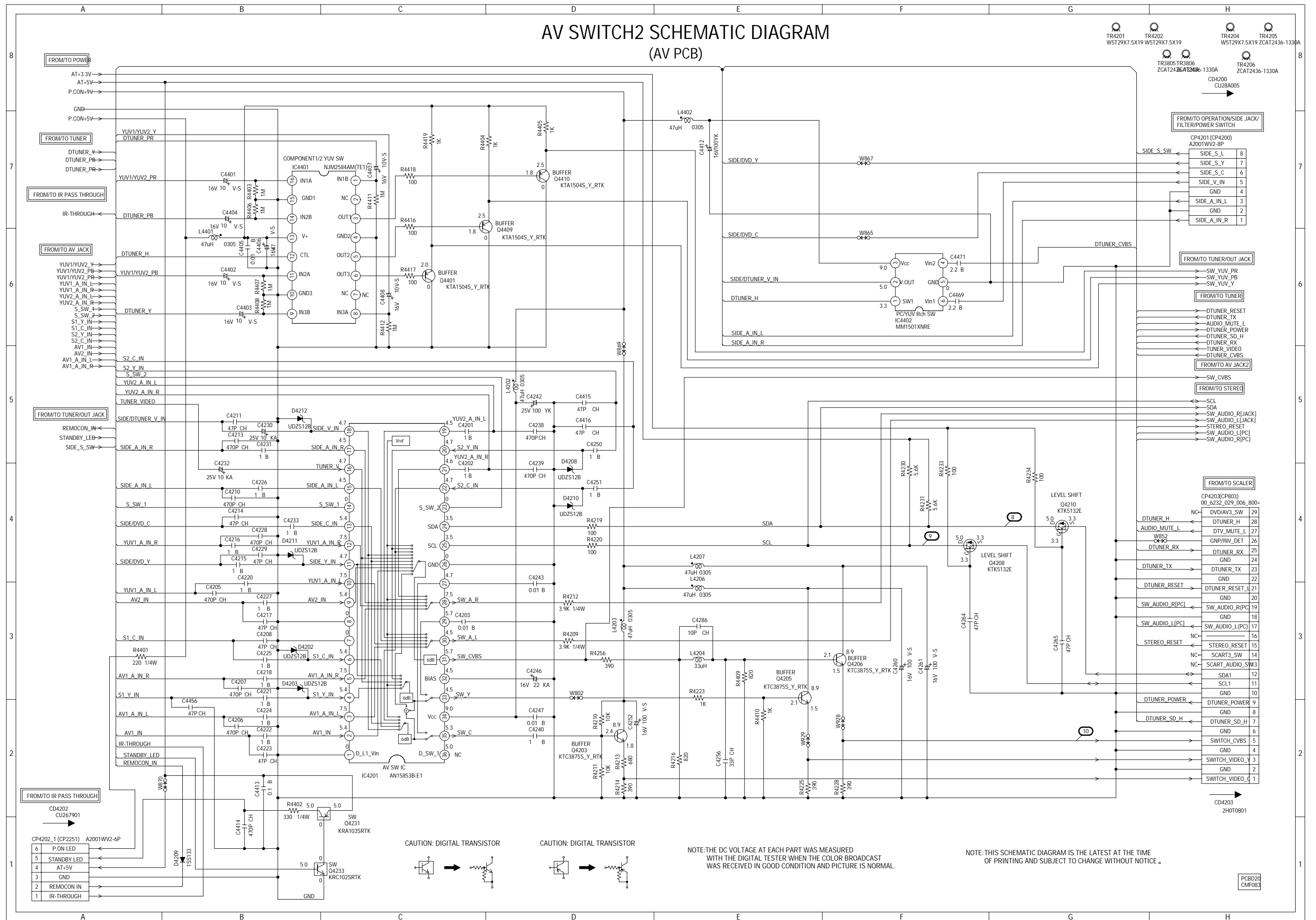
**SIDE JACK  
SOLDER SIDE**



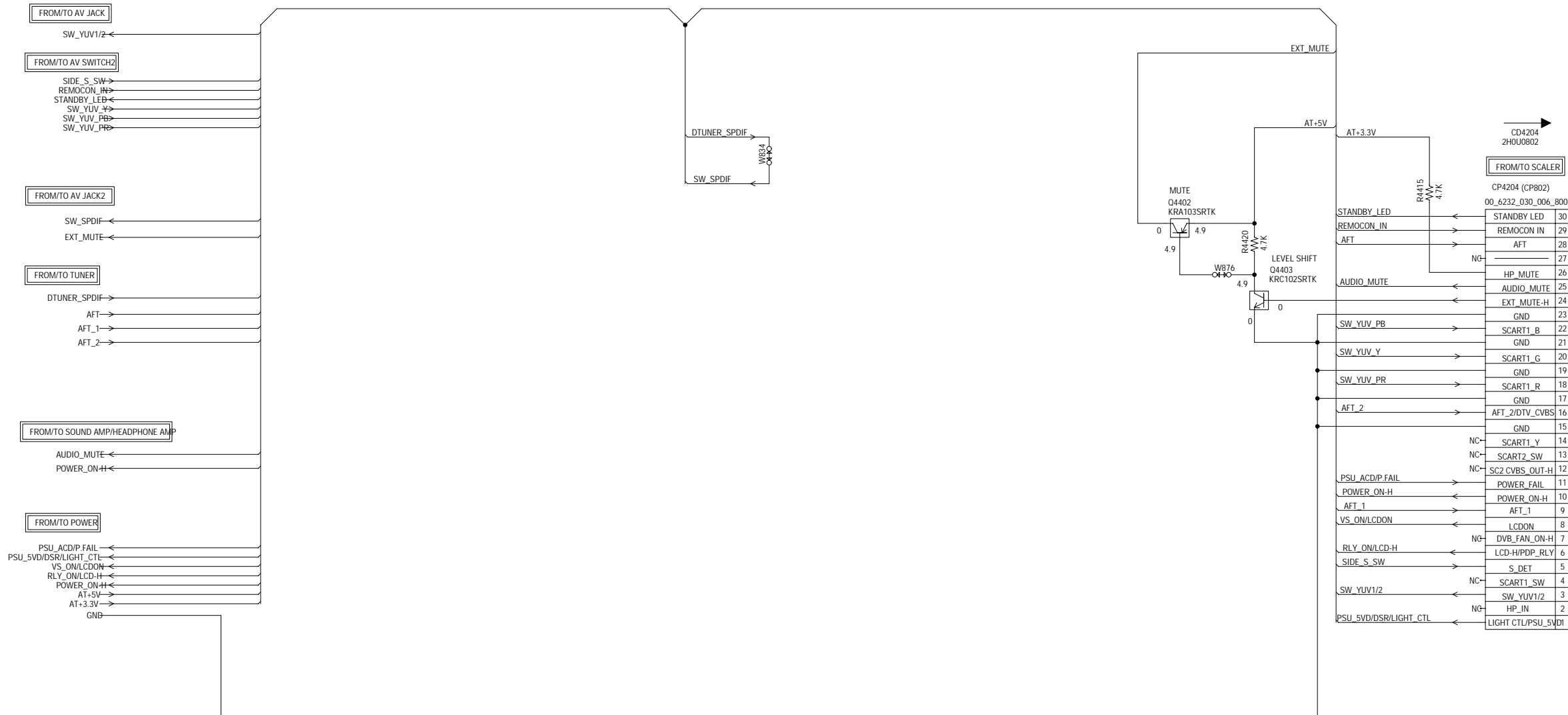
**FILER  
SOLDER SIDE**



## AV SWITCH2 SCHEMATIC DIAGRAM (AV PCB)



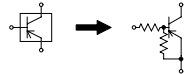
TUNER/OUT JACK SCHEMATIC DIAGRAM  
(AV PCB)



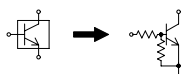
NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED  
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST  
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME  
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE .

CAUTION: DIGITAL TRANSISTOR

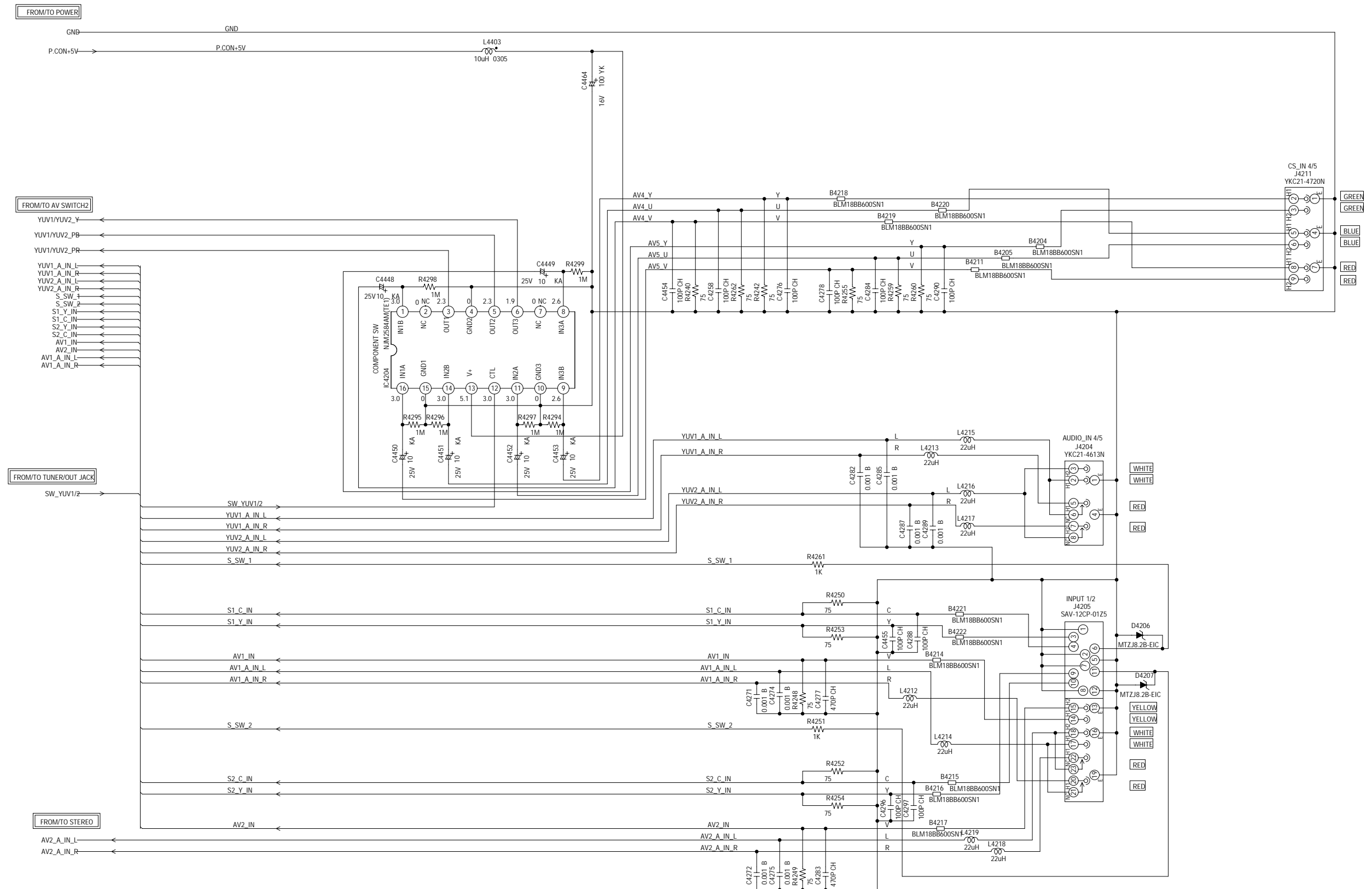


CAUTION: DIGITAL TRANSISTOR





## AV JACK SCHEMATIC DIAGRAM (AV PCB)



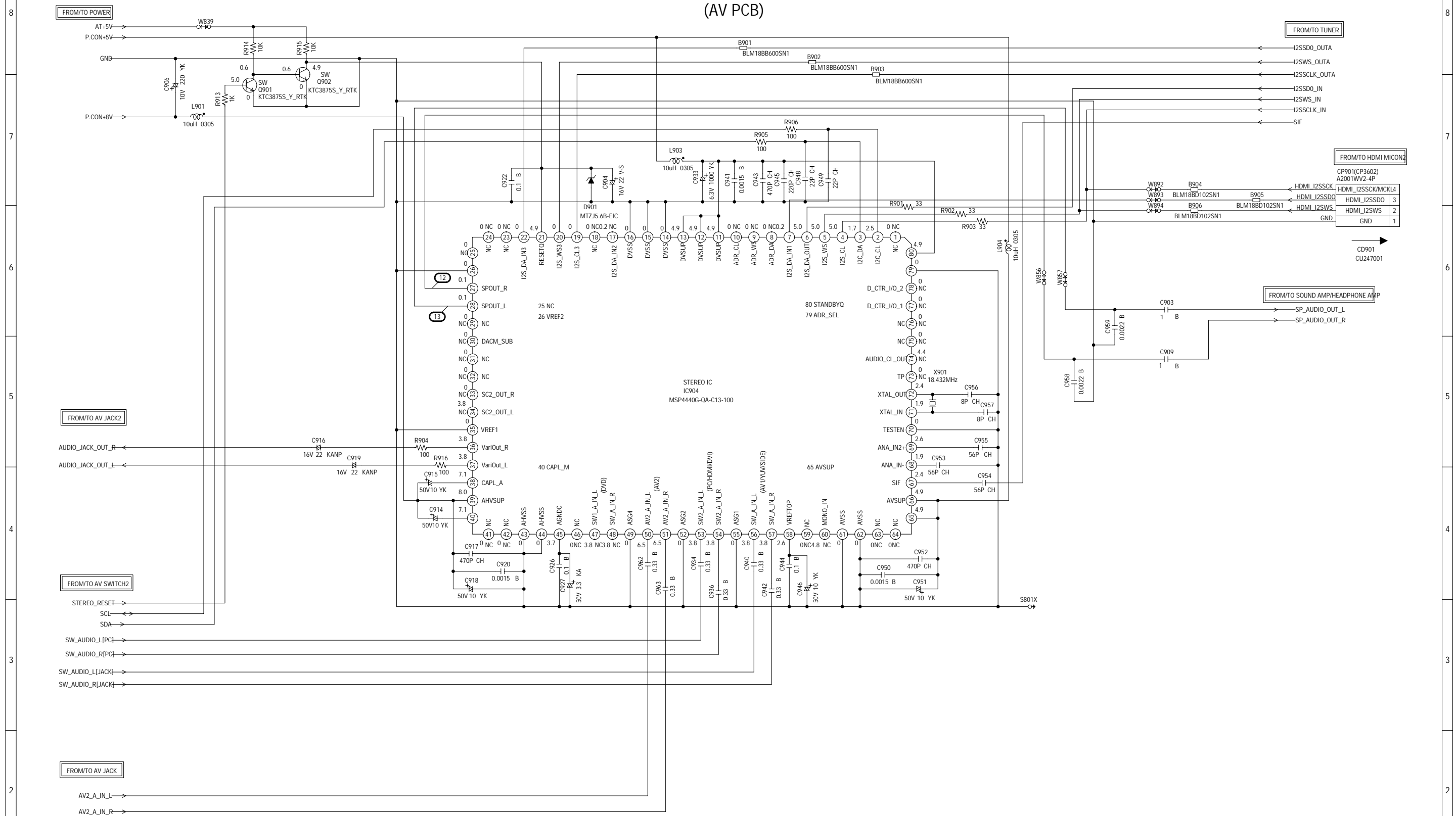
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBD20  
CMF083

## STEREO SCHEMATIC DIAGRAM

(AV PCB)

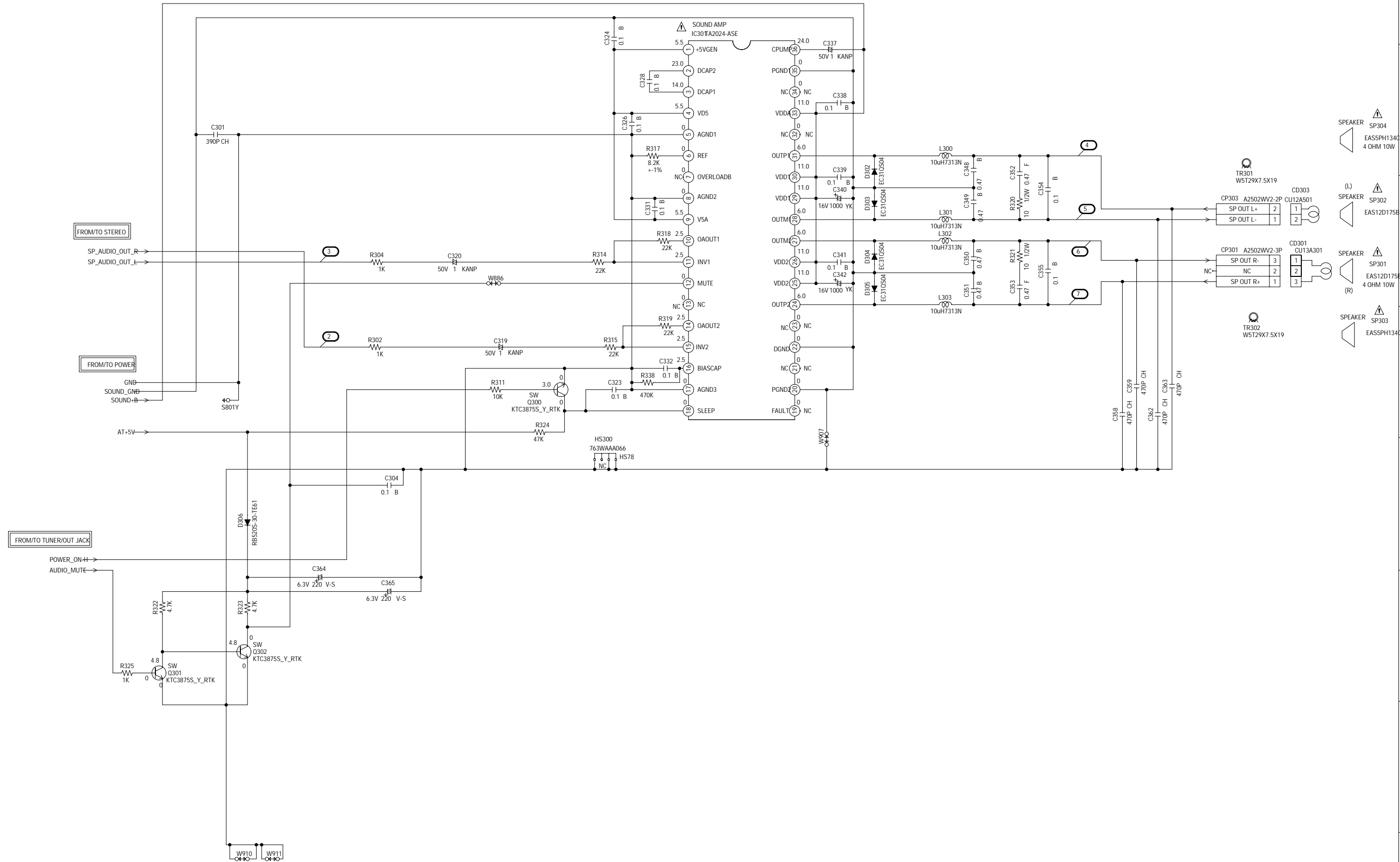


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBD20  
CMF083

SOUND AMP/HEADPHONE AMP SCHEMATIC DIAGRAM  
(AV PCB)



CAUTION: SINCE THESE PARTS MARKED WITH A WARNING SYMBOL ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

ATTENTION: LES PIÈCES RÉPARÉES PAR UN TECHNICIEN ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ, N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

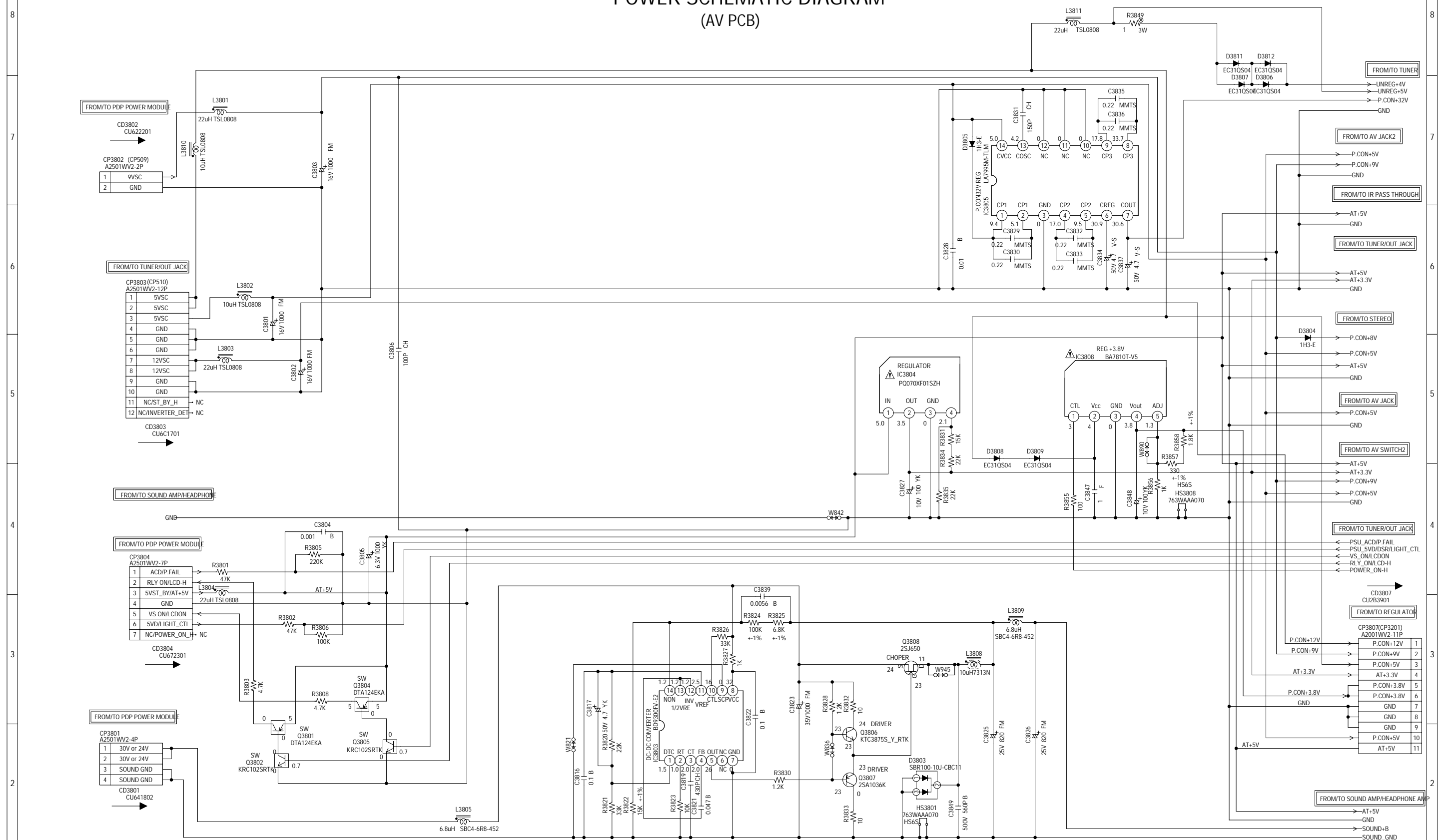
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBD20  
CMF083

## POWER SCHEMATIC DIAGRAM


(AV PCB)



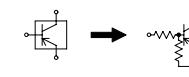
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

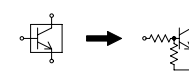
**CAUTION** SINCE THESE PARTS MARKED BY  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY .

**ATTENTION:** LES PIÈCES RÉPARÉES PAR UN  ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

CAUTION: DIGITAL TRANSISTOR



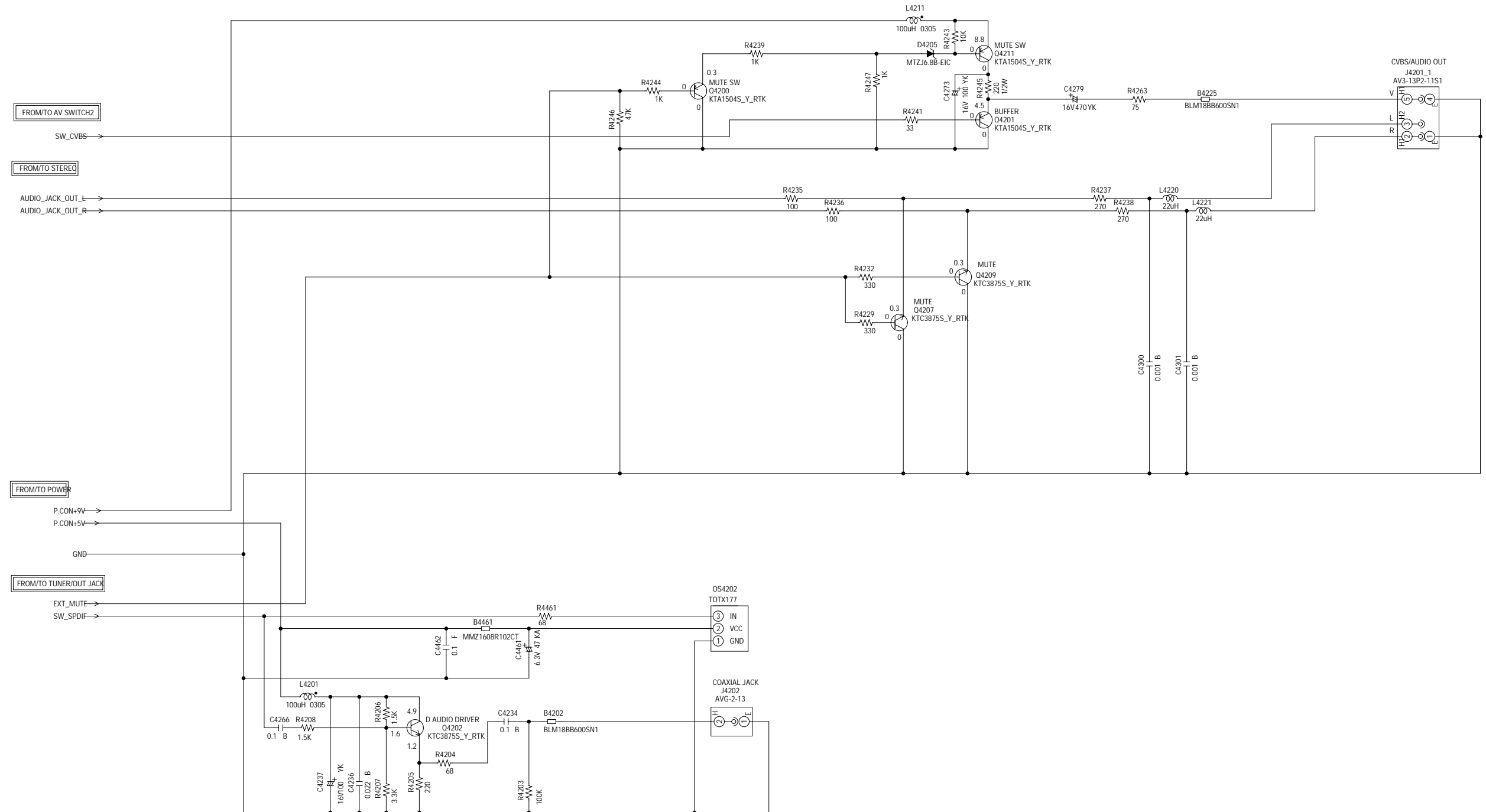
CAUTION: DIGITAL TRANSISTOR



PCBD20  
CMF083

## AV JACK2 SCHEMATIC DIAGRAM

(AV PCB)



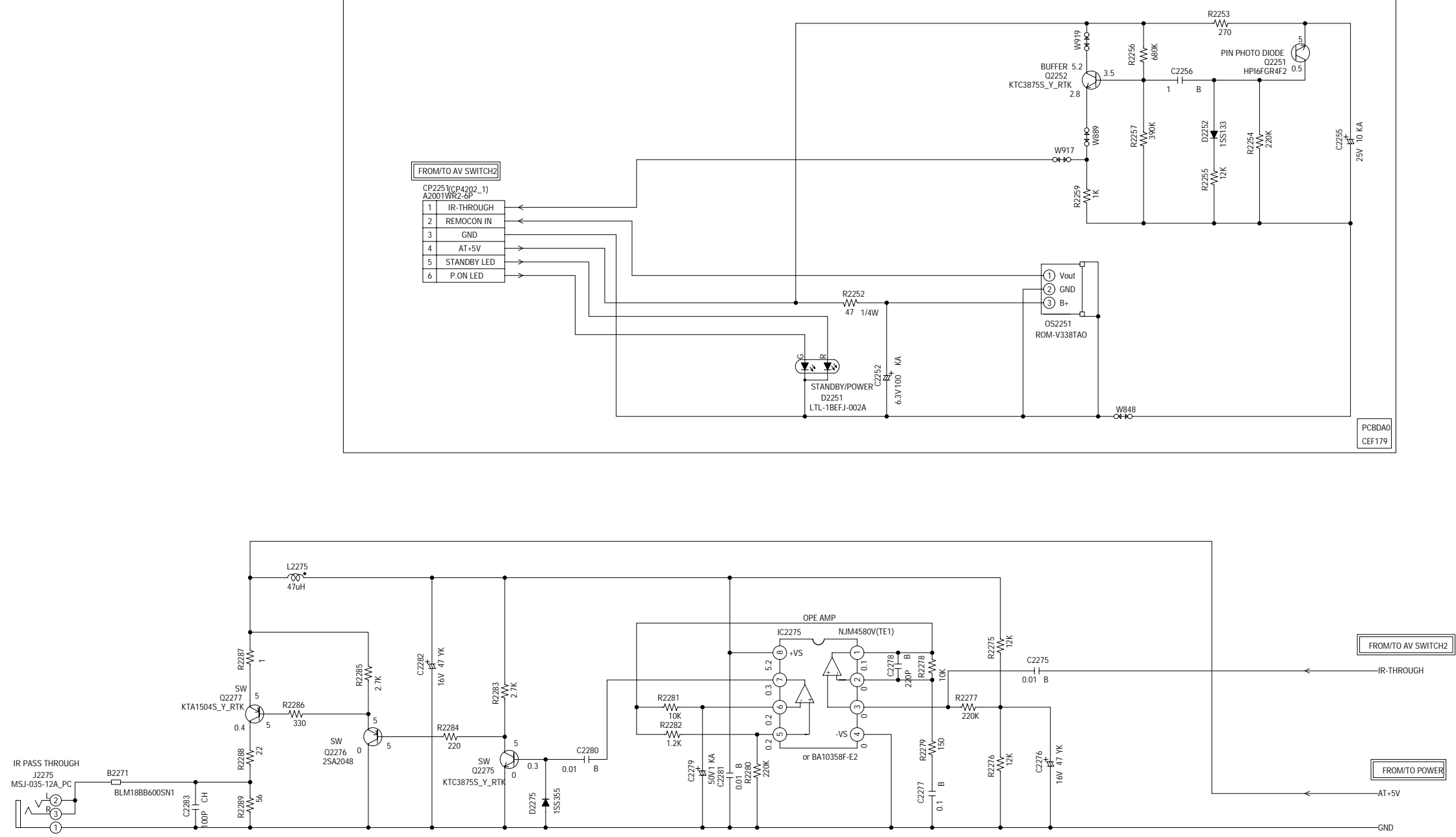
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBD20  
CMF083

IR PASS SCHEMATIC DIAGRAM  
(AV PCB)

(REMOCON PCB)

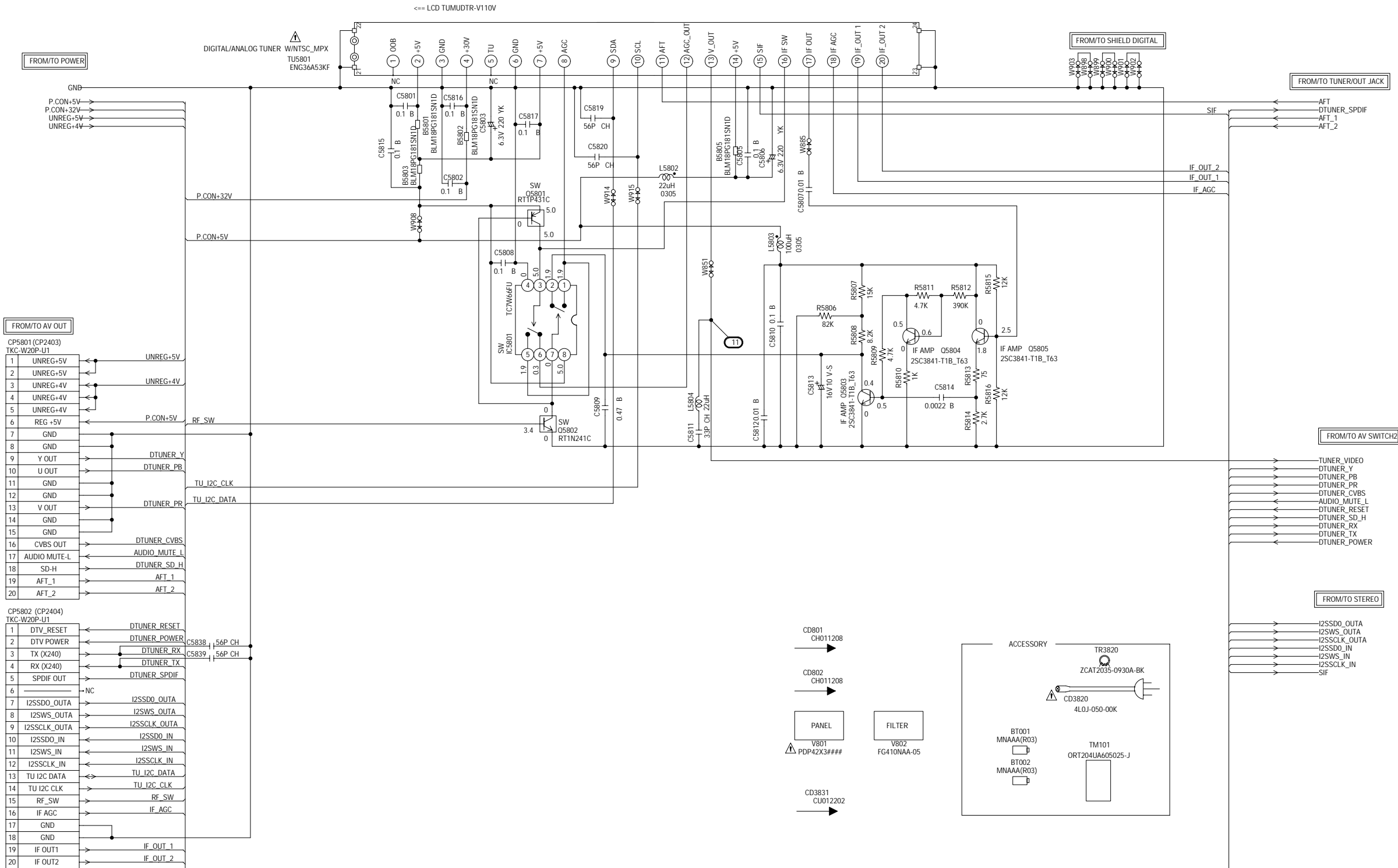


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME  
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE .

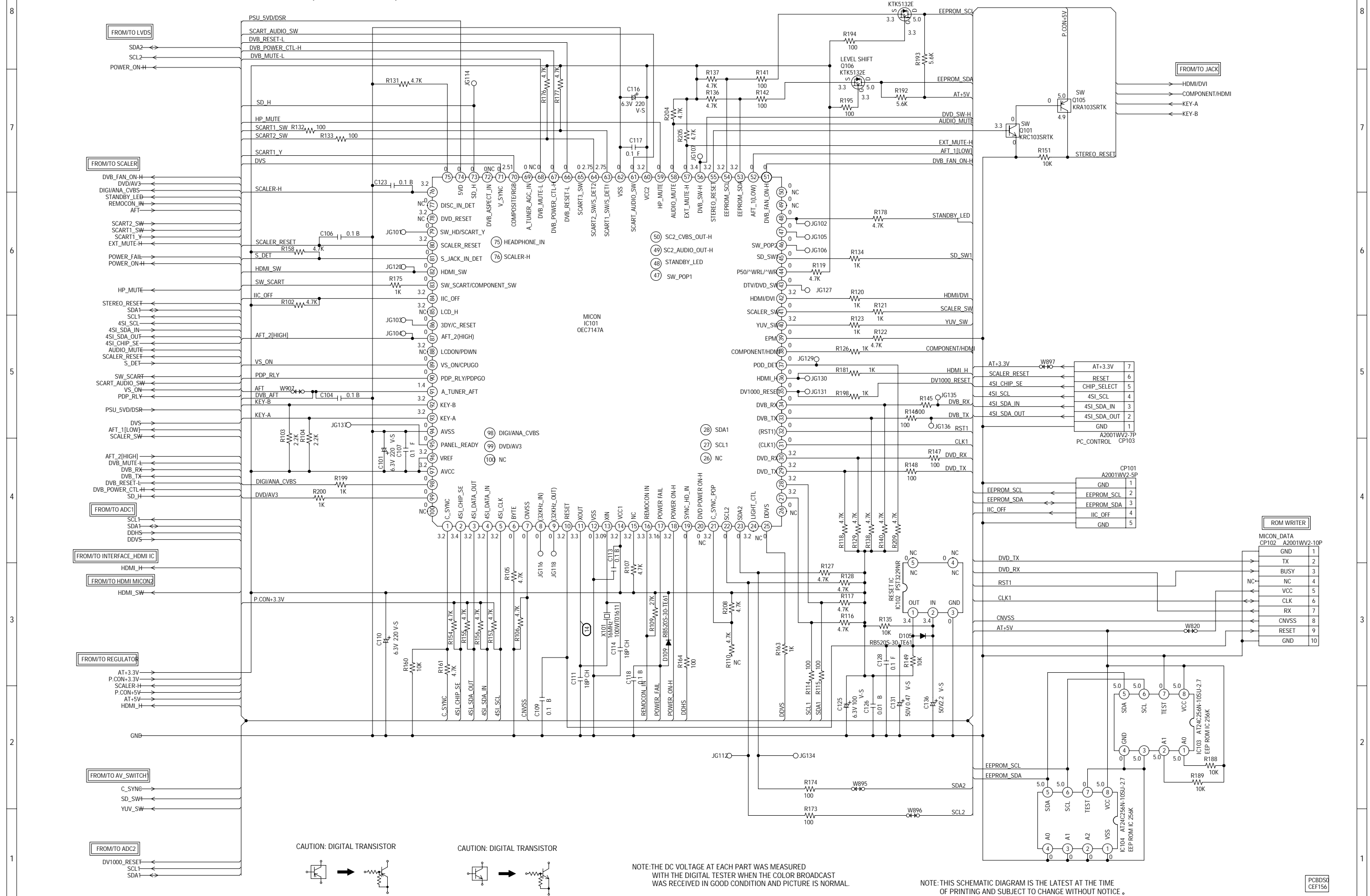
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED  
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST  
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBD20  
CMF083

TUNER SCHEMATIC DIAGRAM  
(AV PCB)

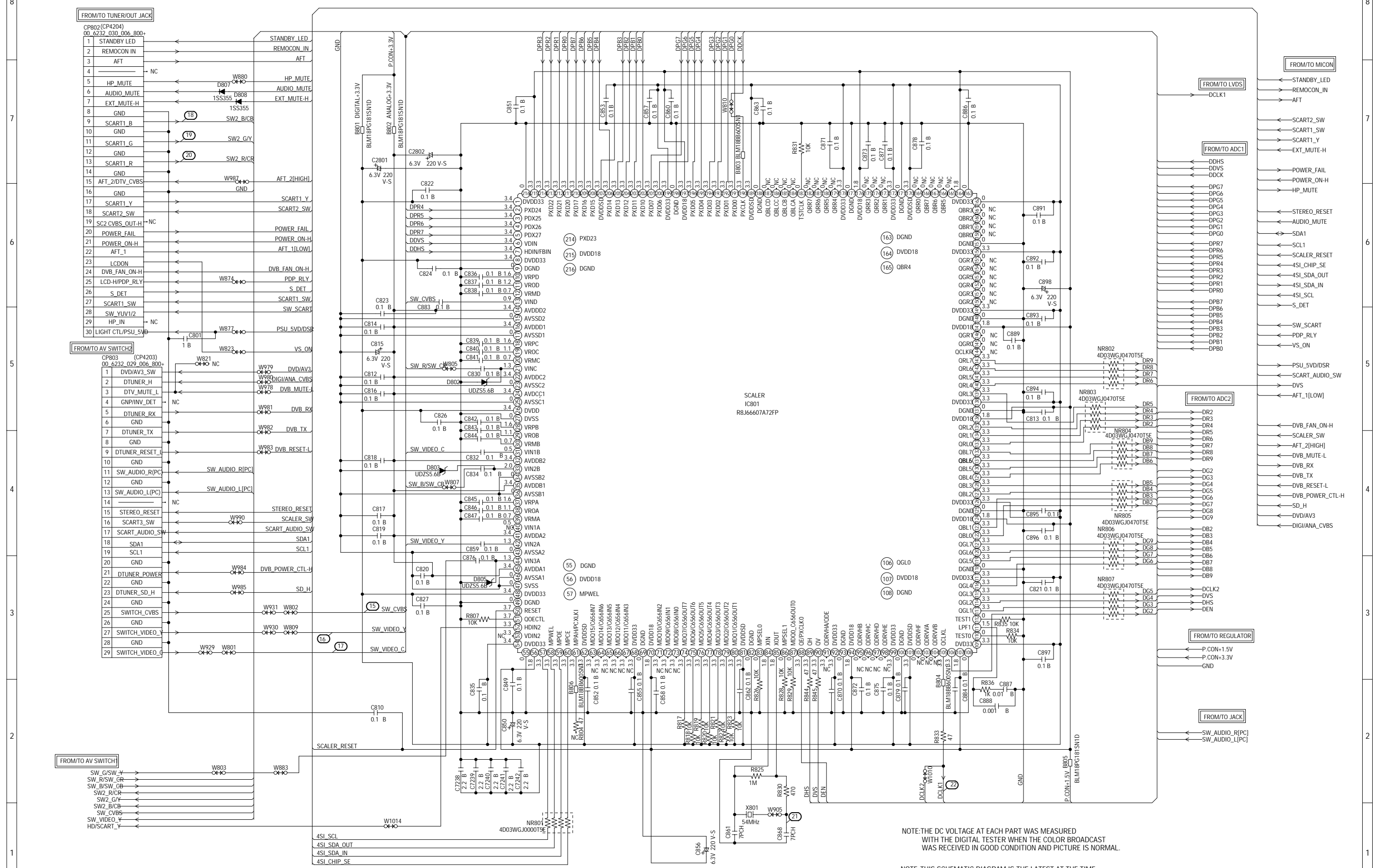


## MICON SCHEMATIC DIAGRAM (SCALER PCB)





# SCALER SCHEMATIC DIAGRAM (SCALER PCB)

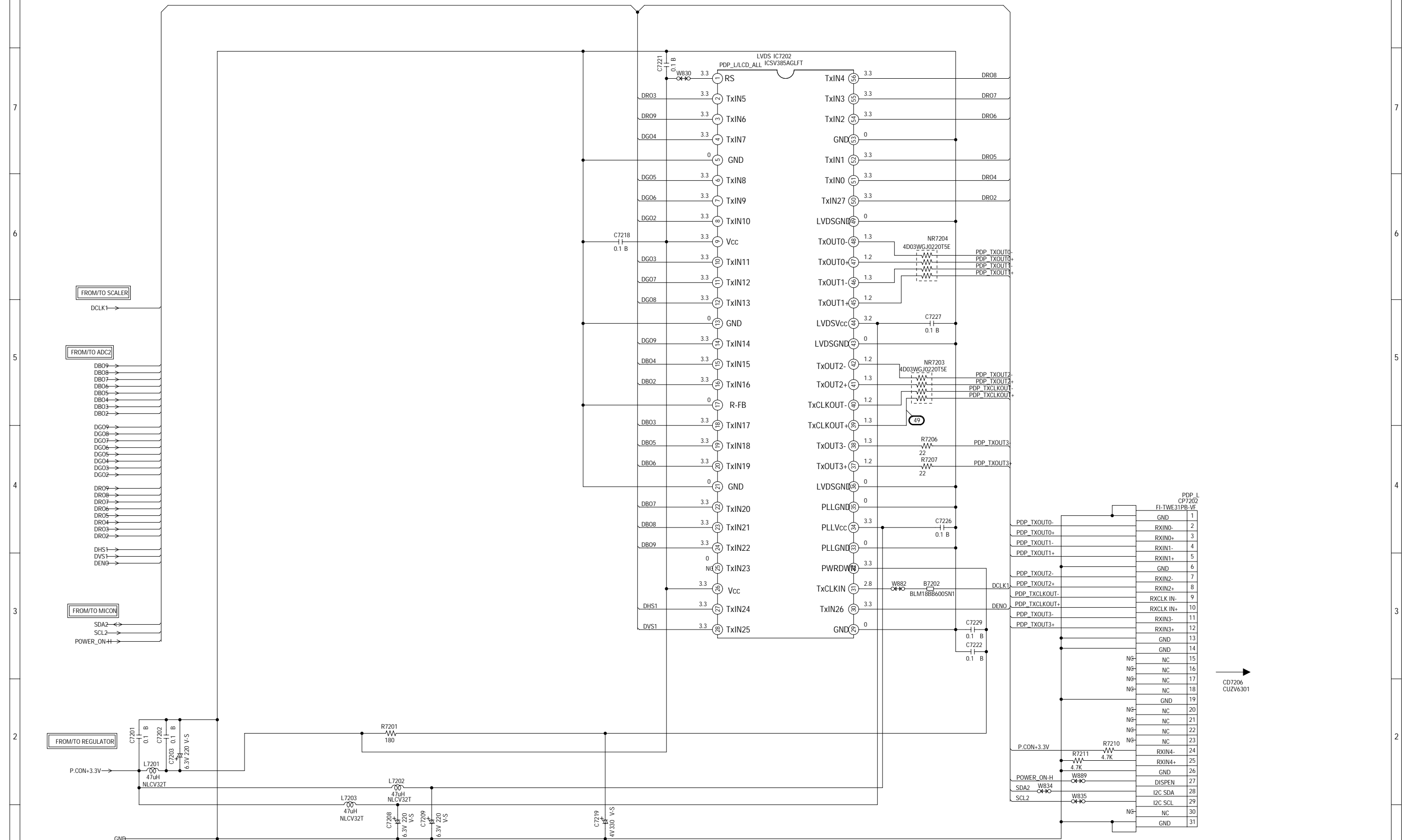


(SCALER PCB)



(SCALER PCB)

## LVDS SCHEMATIC DIAGRAM (SCALER PCB)



NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

		PDP 1 CP7202	
		FI-TWE31PB-VF	
		GND	1
PDP_TXOUT0-		RXIN0-	2
PDP_TXOUT0+		RXIN0+	3
PDP_TXOUT1-		RXIN1-	4
PDP_TXOUT1+		RXIN1+	5
		GND	6
PDP_TXOUT2-		RXIN2-	7
PDP_TXOUT2+		RXIN2+	8
PDP_TXCLKOUT-		RXCLK IN-	9
PDP_TXCLKOUT+		RXCLK IN+	10
PDP_TXOUT3-		RXIN3-	11
PDP_TXOUT3+		RXIN3+	12
		GND	13
		GND	14
	NG	NC	15
	NG	NC	16
	NG	NC	17
	NG	NC	18
		GND	19
	NG	NC	20
	NG	NC	21
	NG	NC	22
	NG	NC	23
P.CON+3.3V	R7211 4.7K	RXIN4-	24
	W889 4.7K	RXIN4+	25
POWER_ON-H	W834	GND	26
SDA2	W835	DISPEN	27
SCL2		I2C SDA	28
		I2C SCL	29
		NC	30
		GND	31

CD7206  
CUZV6301

PCBDS0  
CEF156

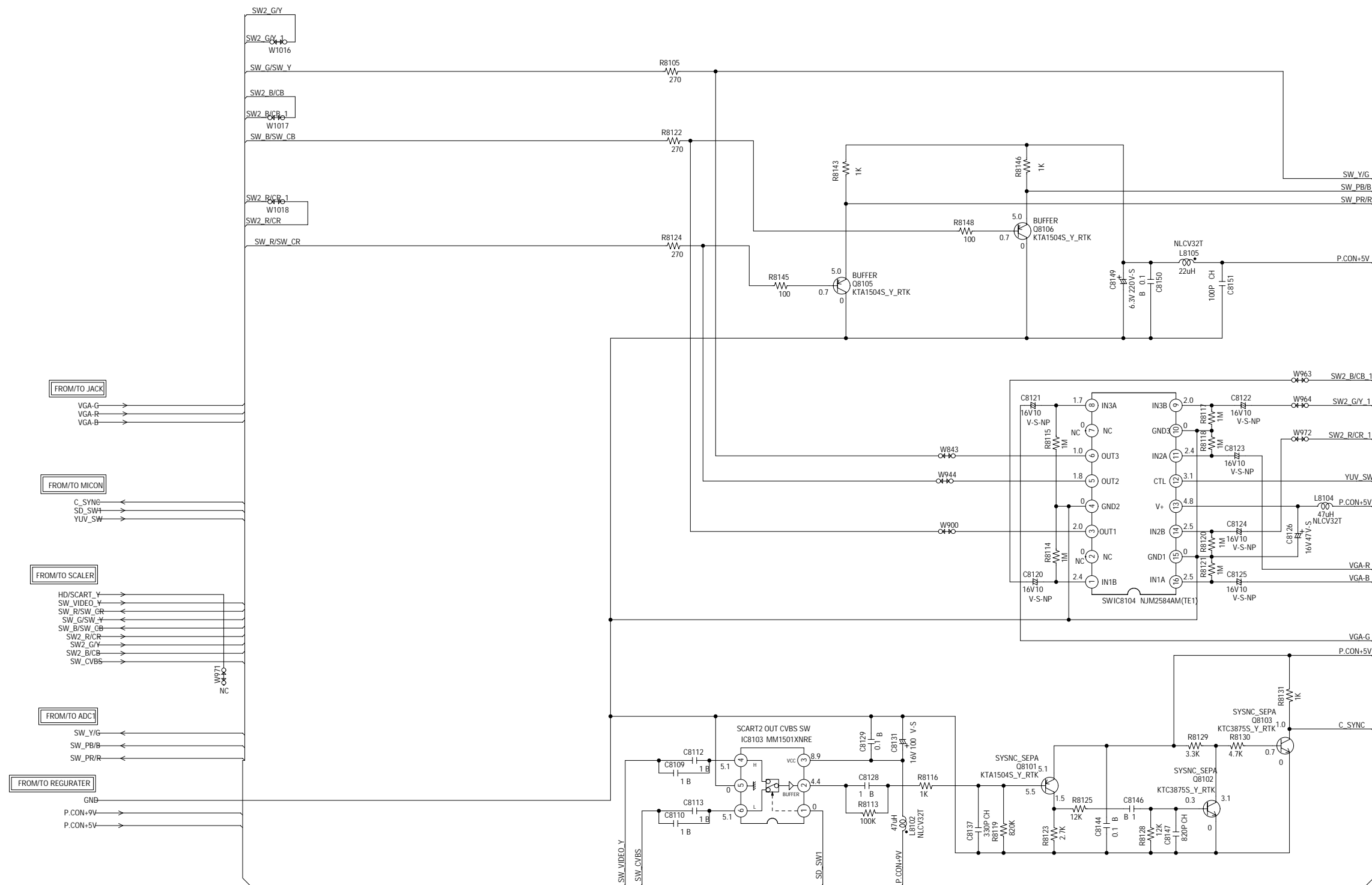
(SCALER PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE .

PCBDS0  
CEF156

## AV SWITCH1 SCHEMATIC DIAGRAM (SCALER PCB)

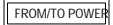


NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE .

PCBDS0  
CEF156

(SCALER PCB)



### CAUTION

## ATTENTION

CAUTION: DIGITAL TRANSISTOR



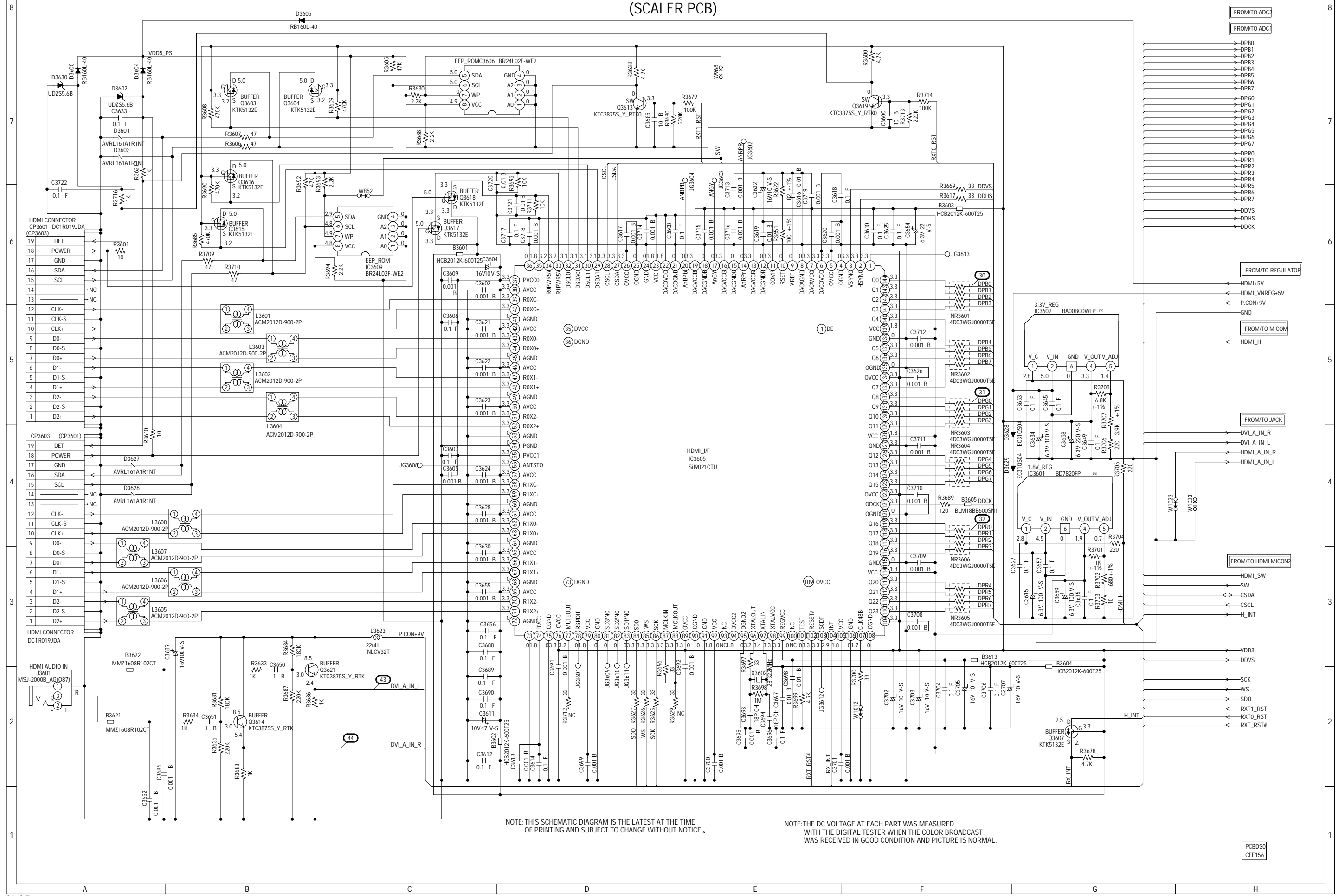
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE .

PCBDSO  
CEF156

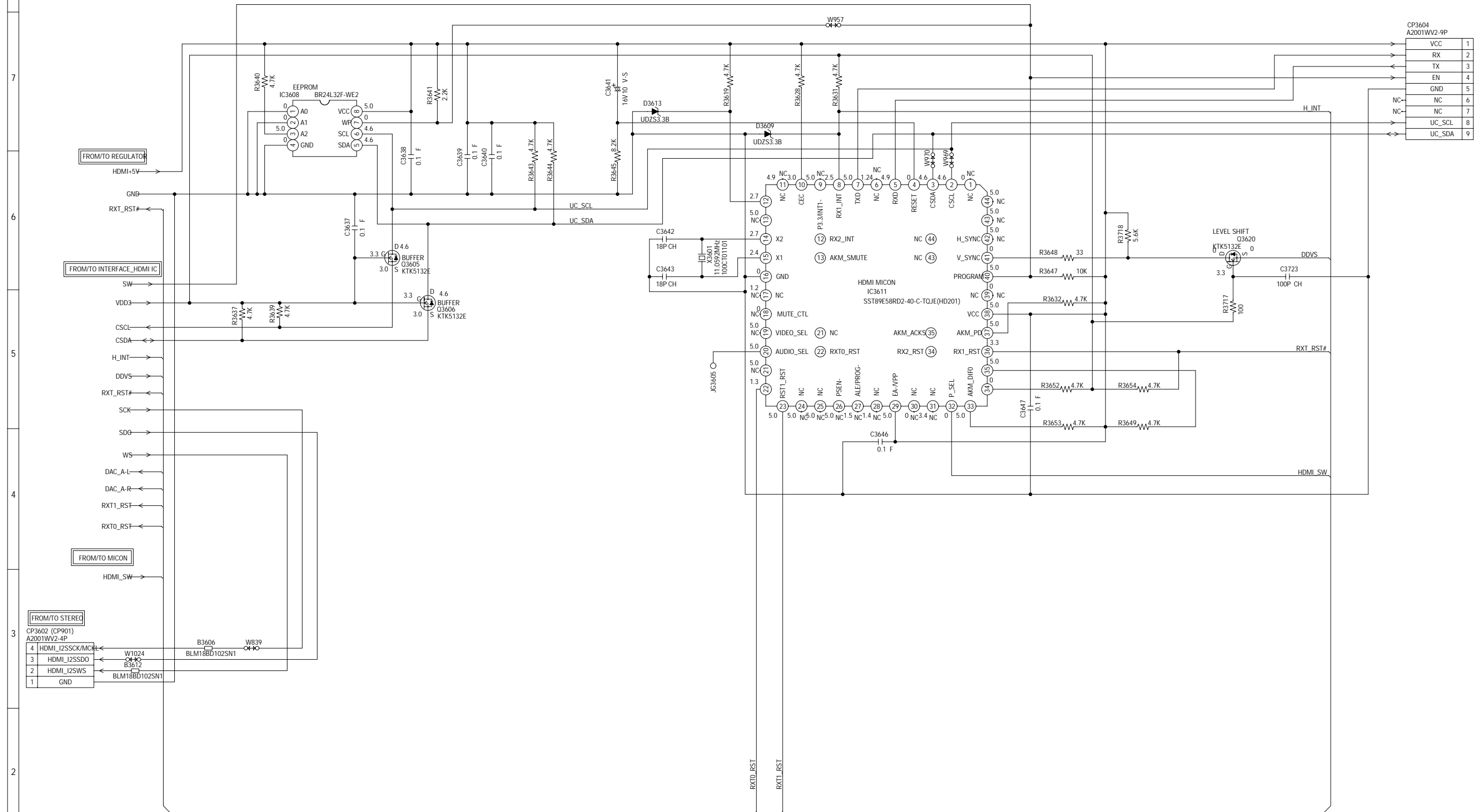
# INTERFACE\_HDMI IC SCHEMATIC DIAGRAM

(SCALER PCB)





## HDMI MICON2 SCHEMATIC DIAGRAM

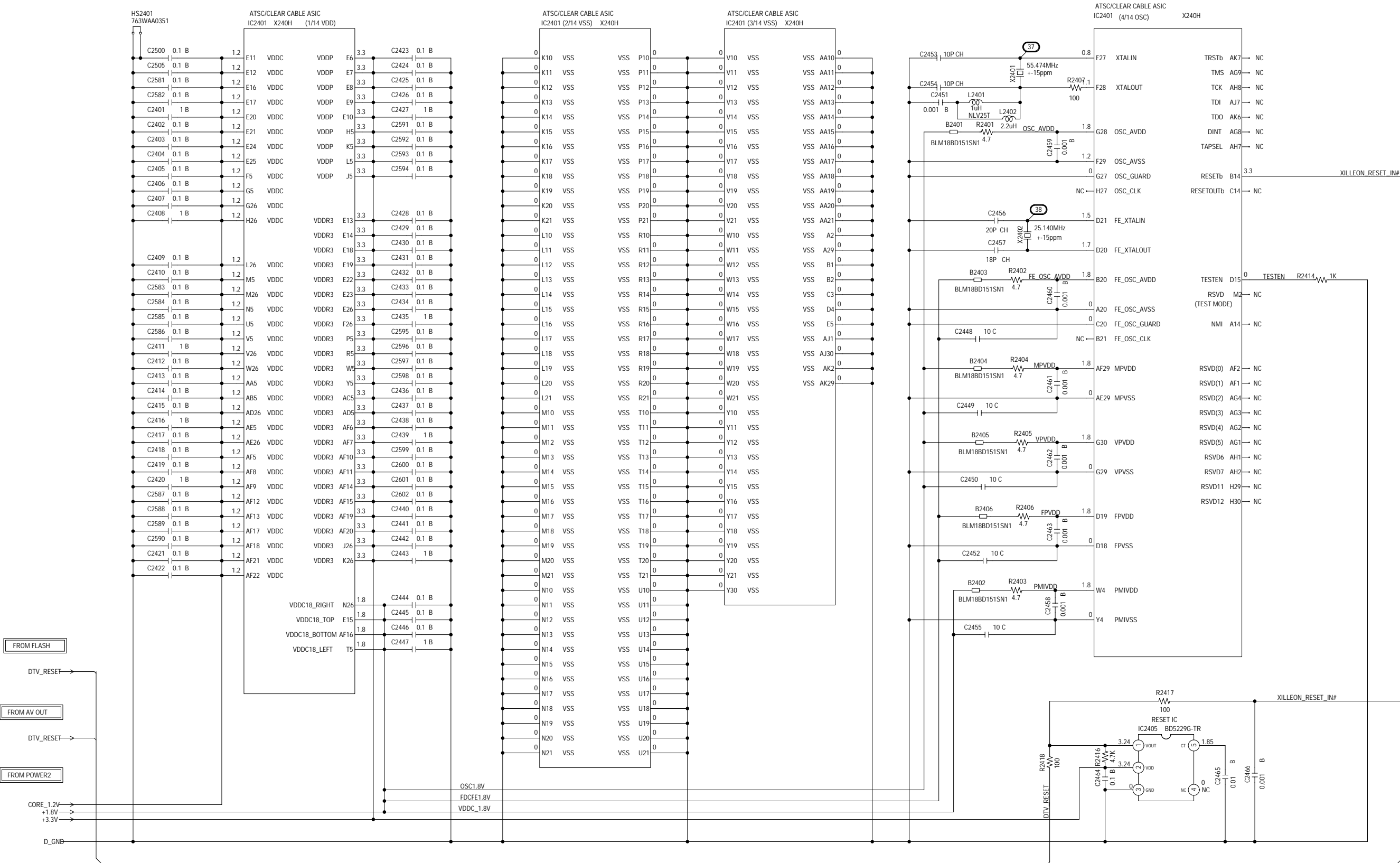


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBDS0  
CEF156

ASIC SCHEMATIC DIAGRAM  
(DIGITAL PCB)



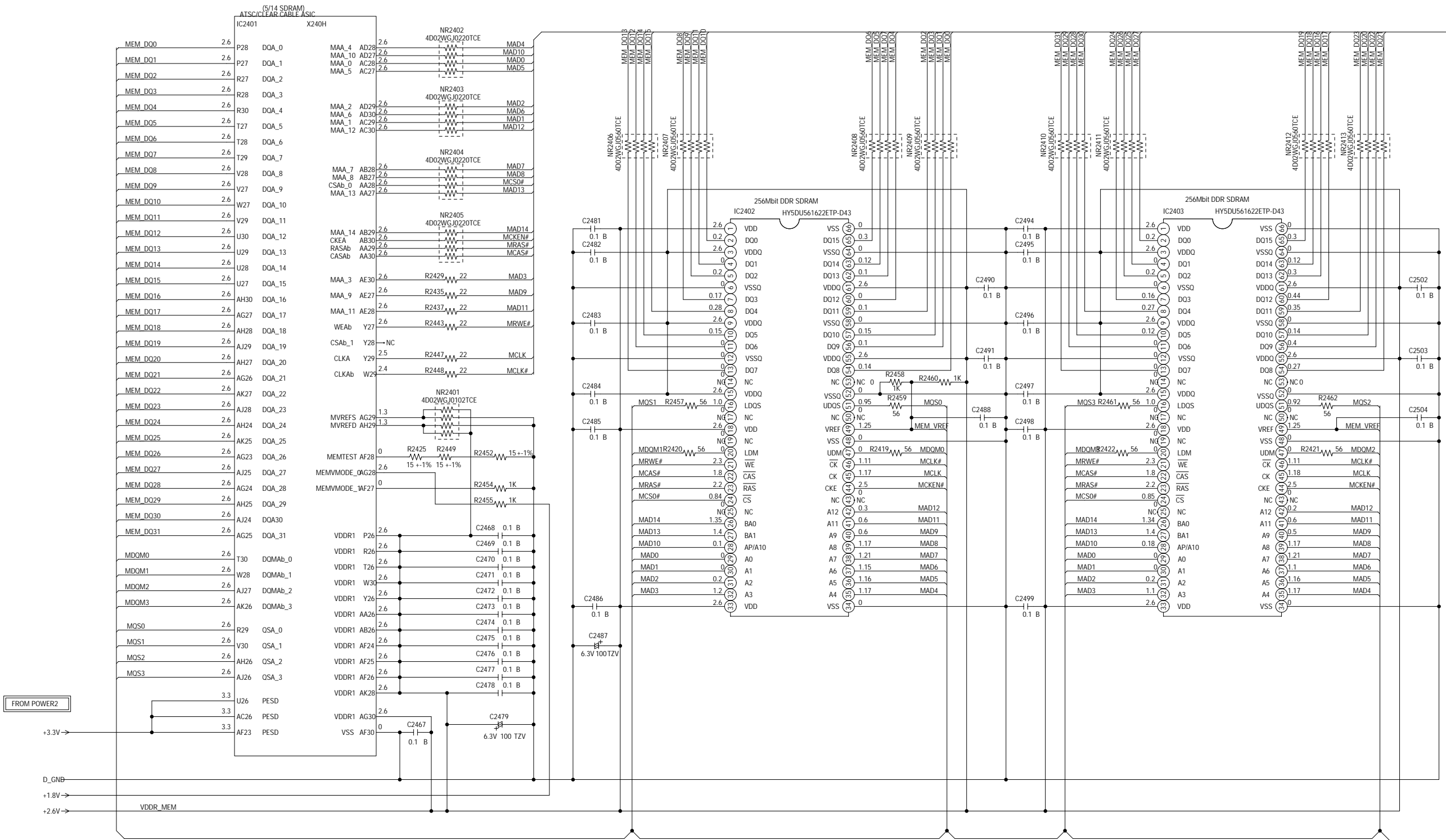
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE .

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBDH0  
CEF169

# SDRAM SCHEMATIC DIAGRAM

(DIGITAL PCB)



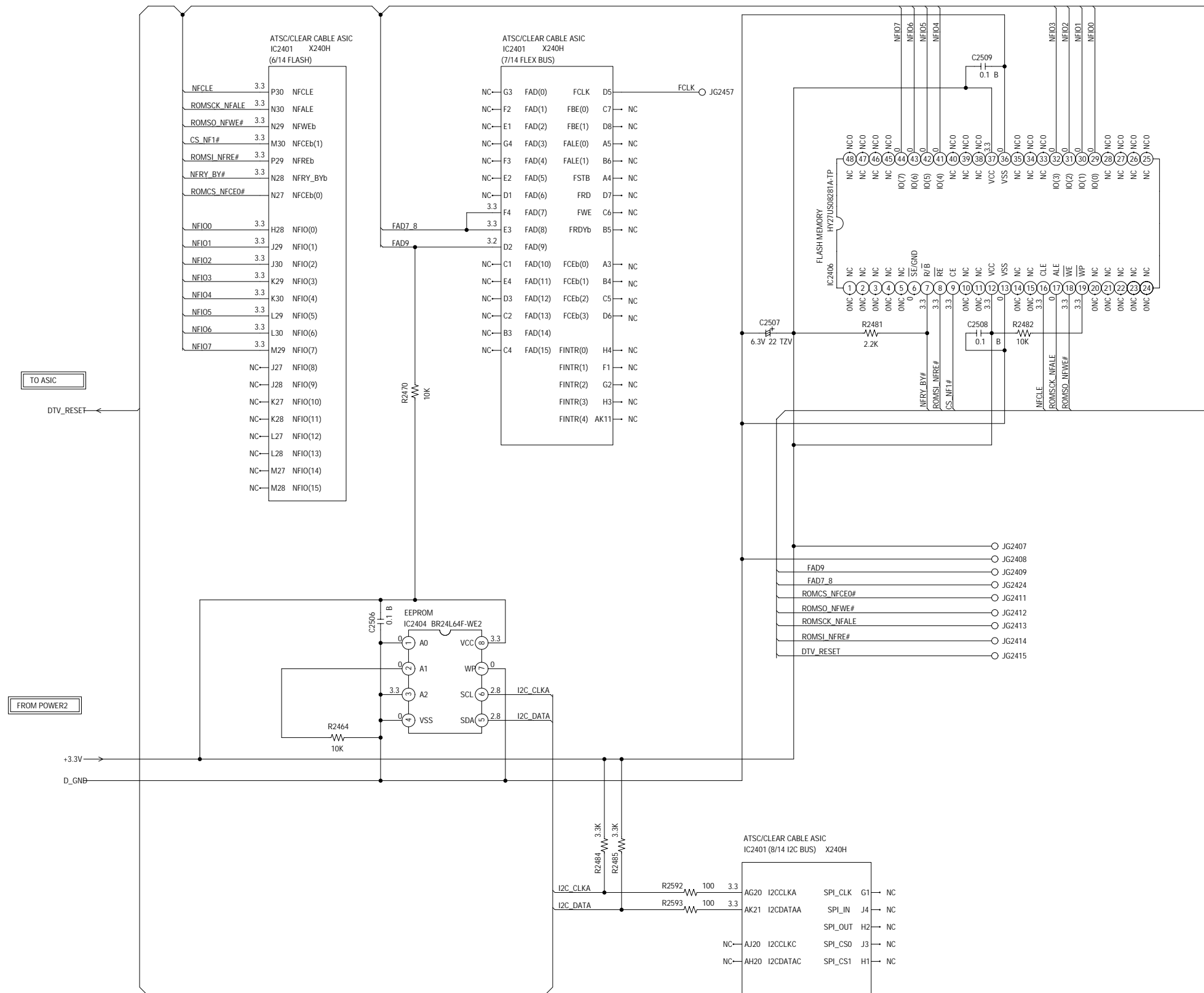
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE .

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBDH0  
CEF169

## FLASH SCHEMATIC DIAGRAM

(DIGITAL PCB)

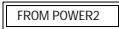


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE:THE DC VOLTAGE AT EACH PART WAS MEASURED  
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST  
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBDH0  
CEF169

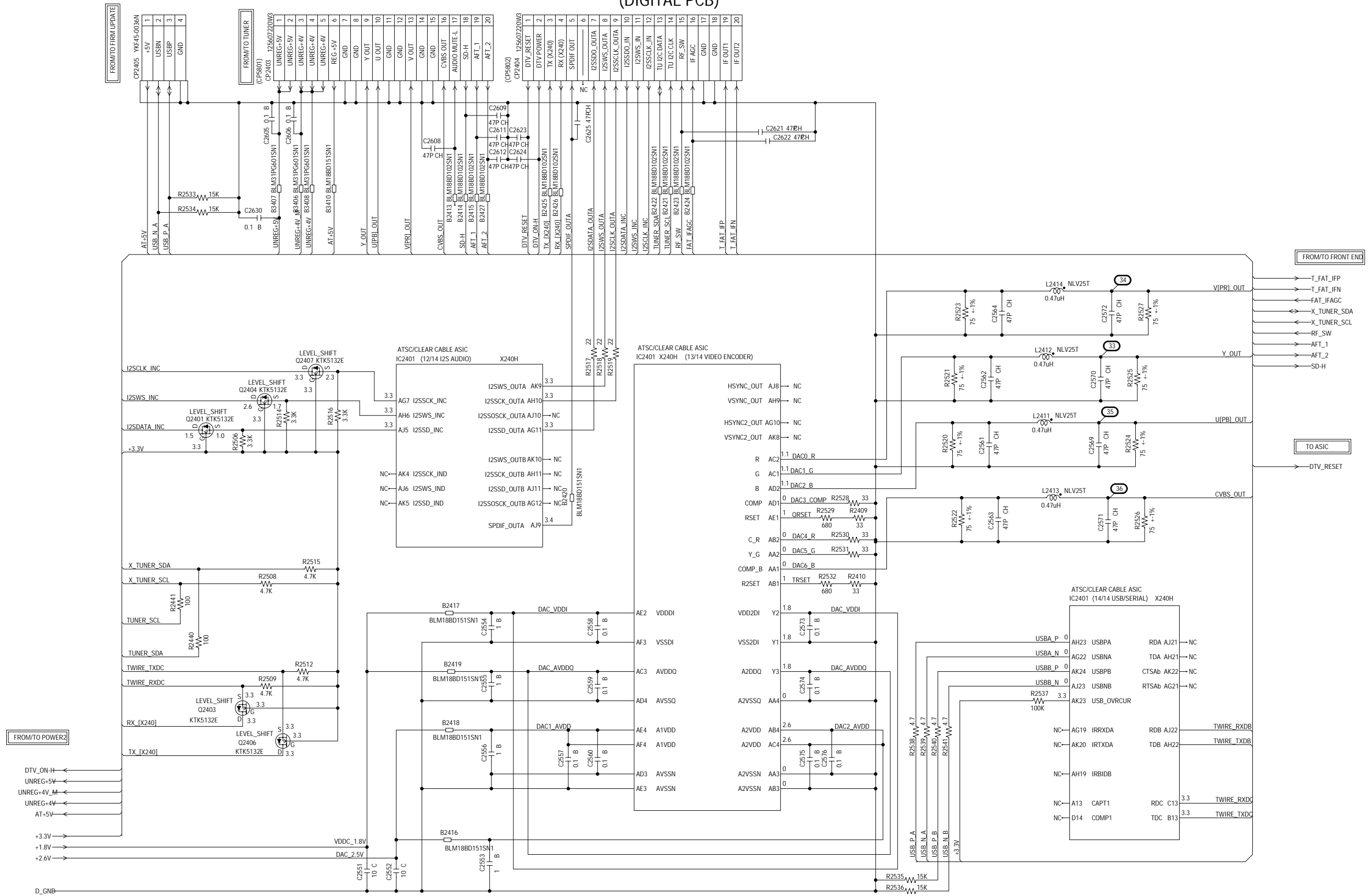
(DIGITAL PCB)



NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

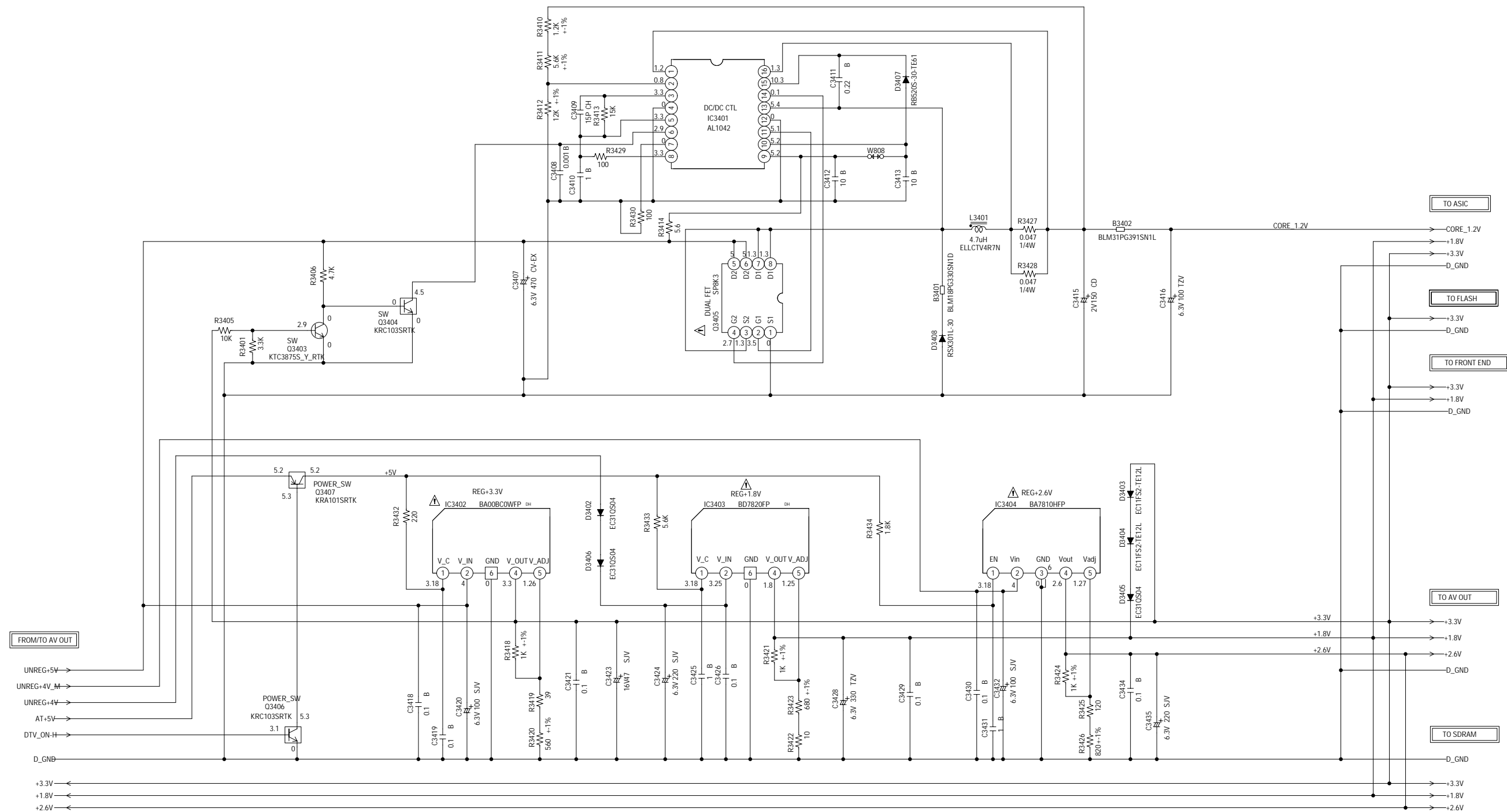
PCBDH0  
CFE169

(DIGITAL PCB)

PCBDH0  
CEF169

# POWER2 SCHEMATIC DIAGRAM

## (DIGITAL PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

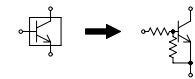
CAUTION: SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

ATTENTION: LES PIÈCES RÉPARÉES PAR UN ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ, N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

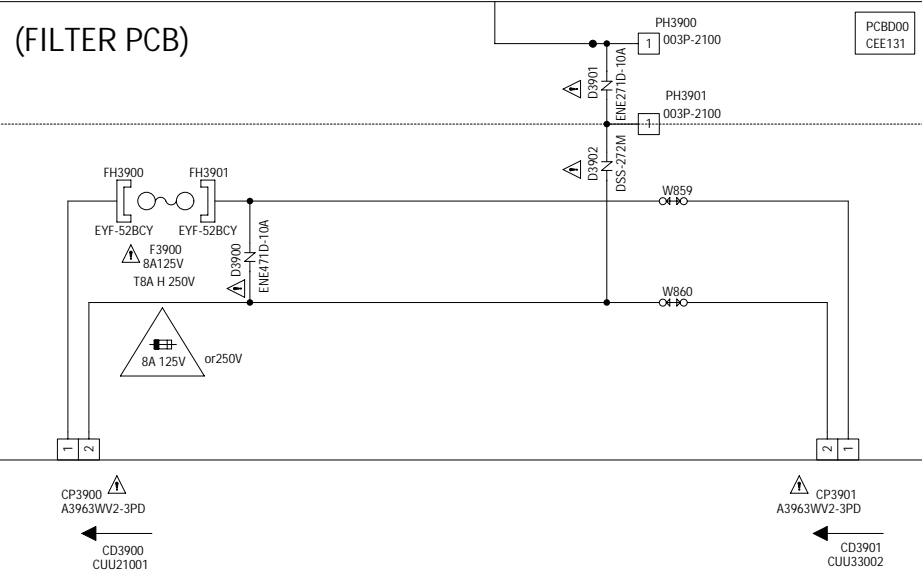
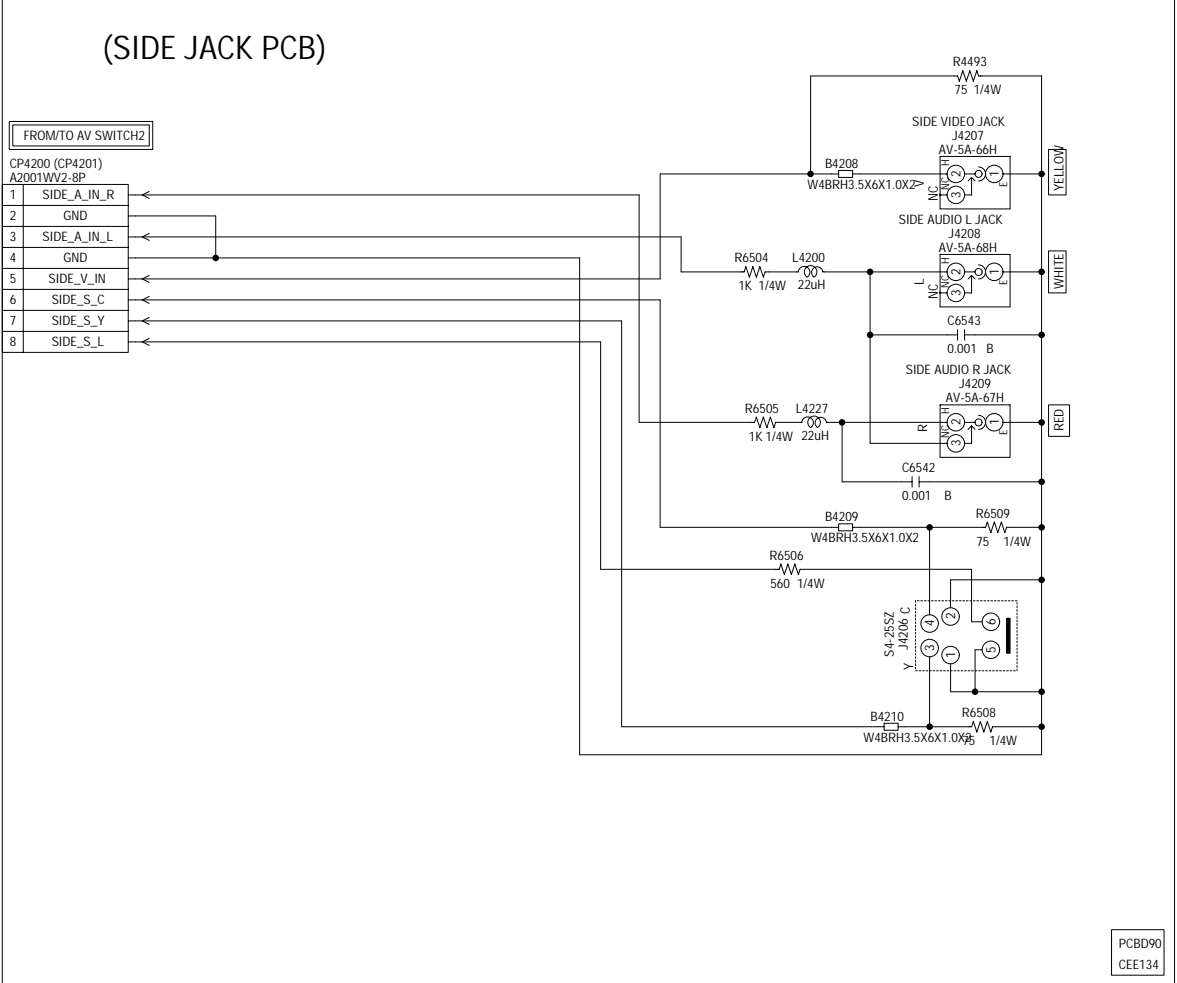
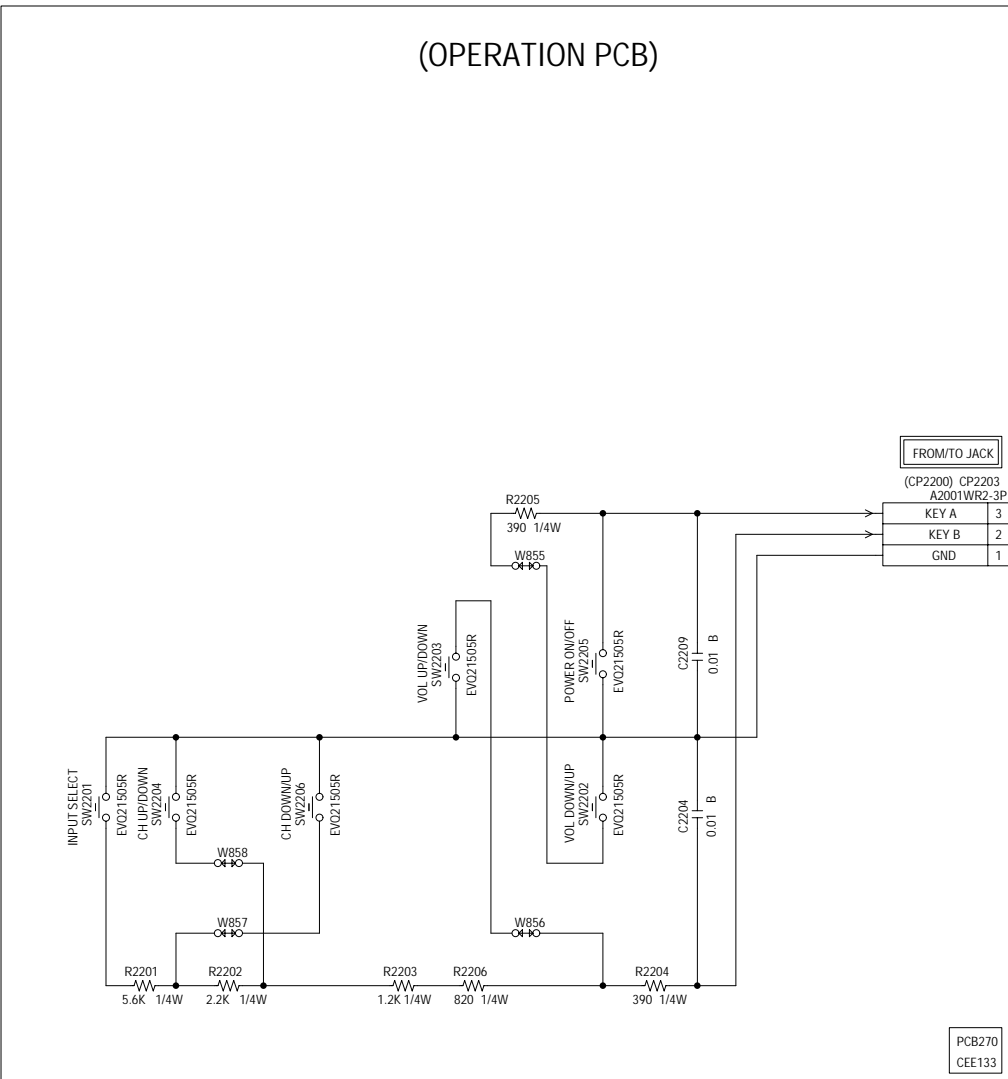
CAUTION: DIGITAL TRANSISTOR





CAUTION: DIGITAL TRANSISTOR



OPERATION/SIDE JACK/FILTER SCHEMATIC DIAGRAM



CAUTION: SINCE THESE PARTS MARKED BY  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

ATTENTION: LES PIECES REPARÉES PAR UN  ÉTANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

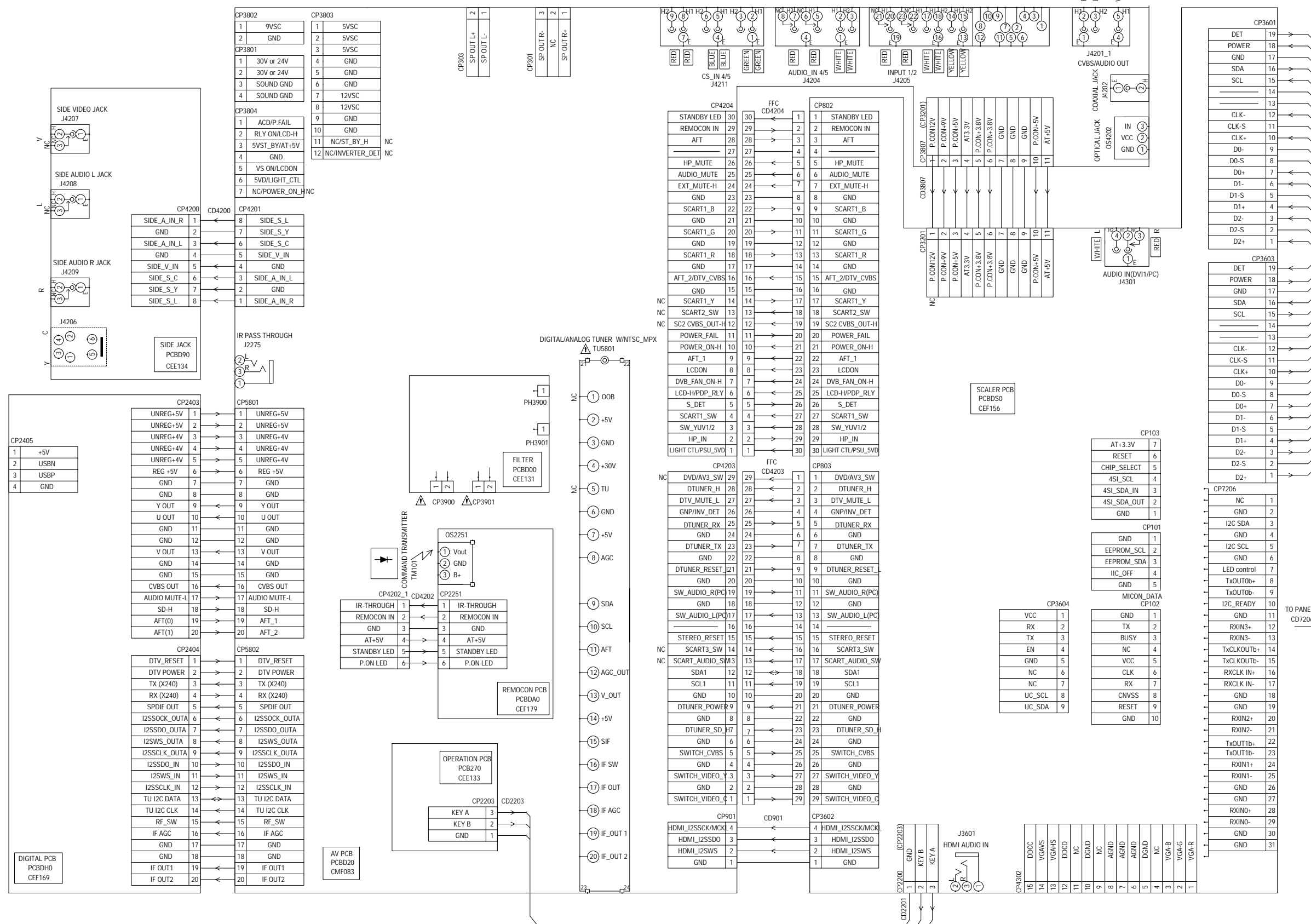


CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE 8A 125V (F3900).  
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES D'INCEIE N'UTILISER QUE DES FUSIBLE DE MEME TYPE 8A 125V (F3900).


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.



## INTERCONNECTION DIAGRAM



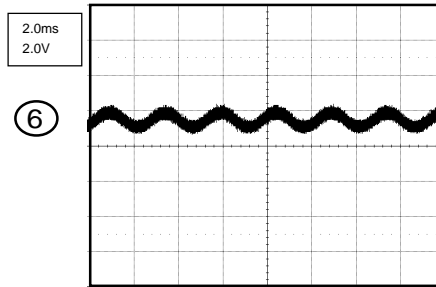
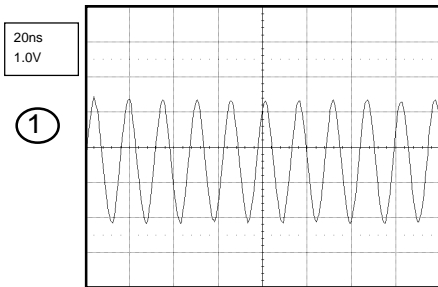
NOTE: THIS INTERCONNECTION DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE .

**CAUTION** SINCE THESE PARTS MARKED BY  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

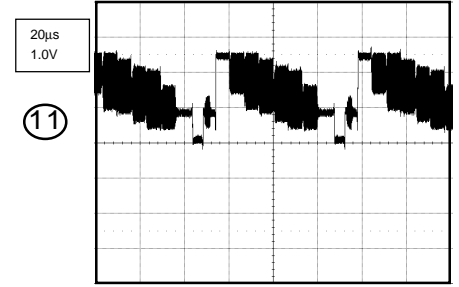
**ATTENTION:** LES PIÈCES RÉPARÉES PAR UN  ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

# WAVEFORMS

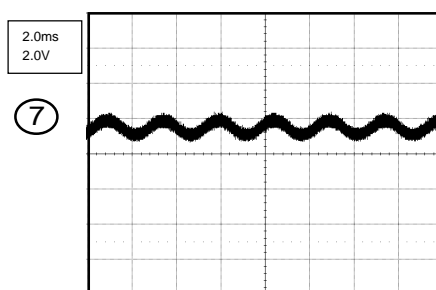
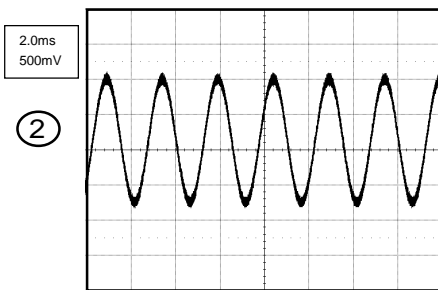
## ADC1



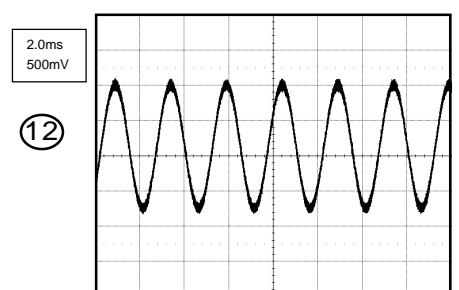
## TUNER



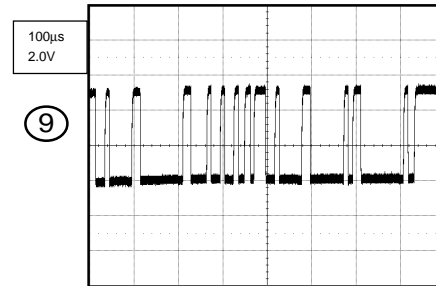
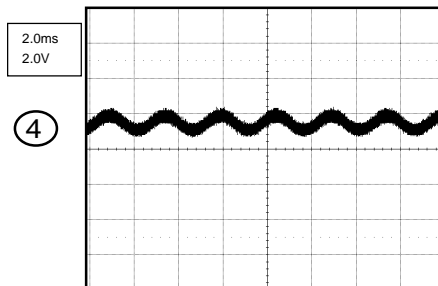
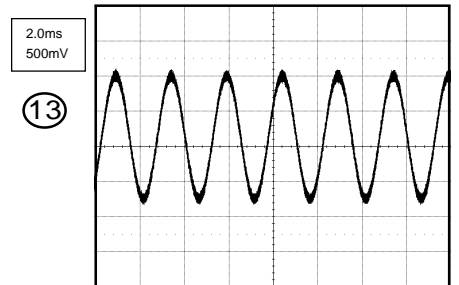
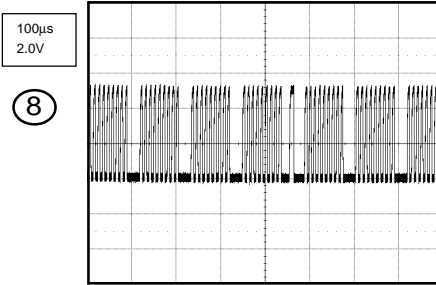
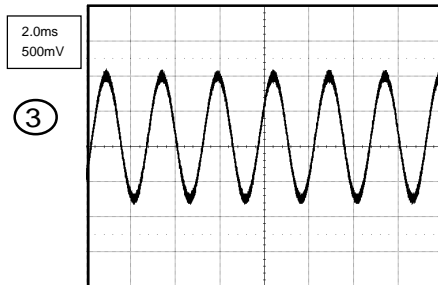
## SOUND AMP/HEADPHON AMP



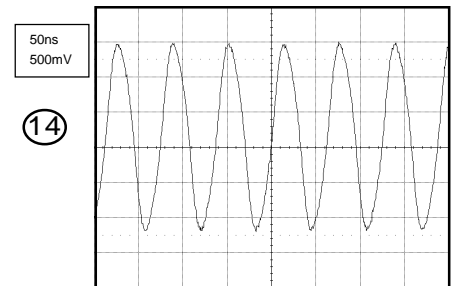
## STEREO



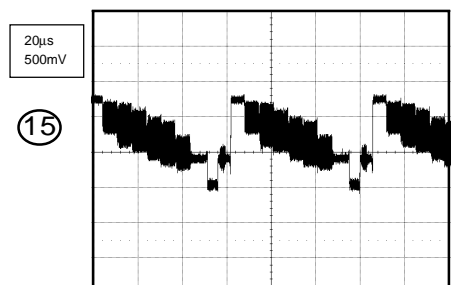
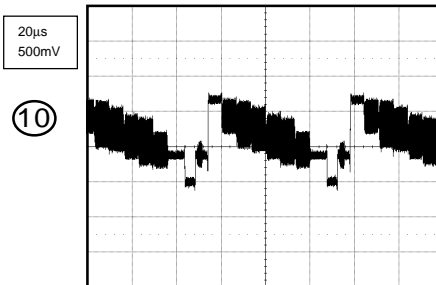
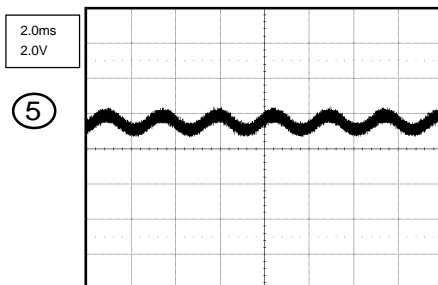
## AV SWITCH2



## MICON

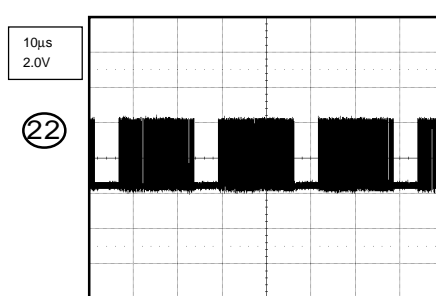
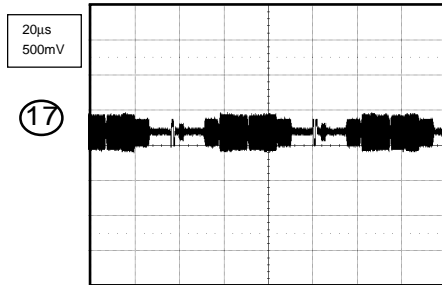
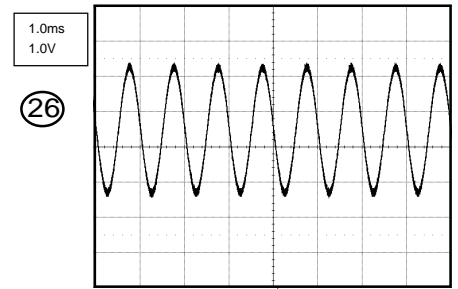
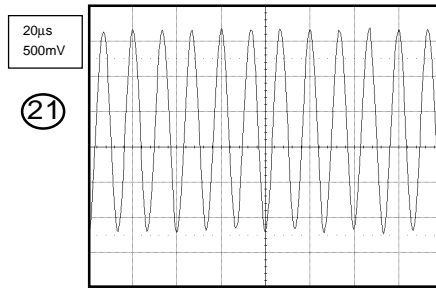
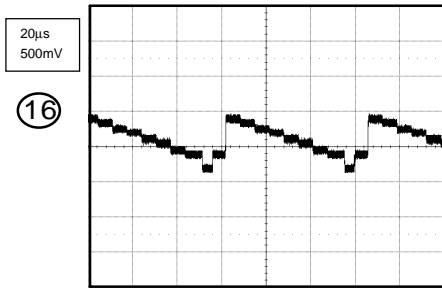


## SCALER

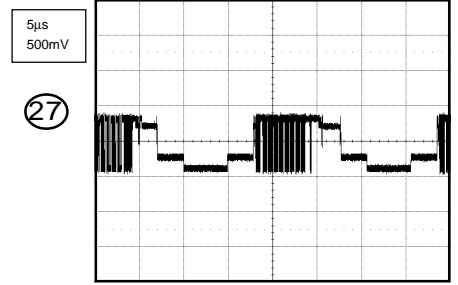


**NOTE:** The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

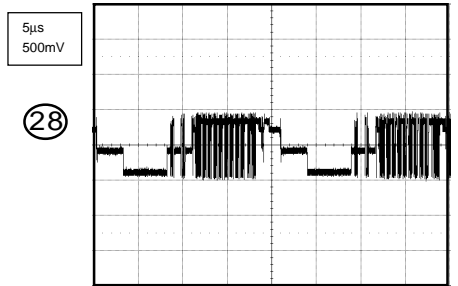
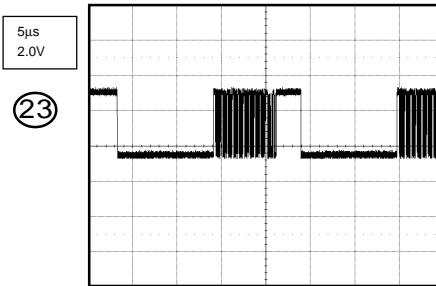
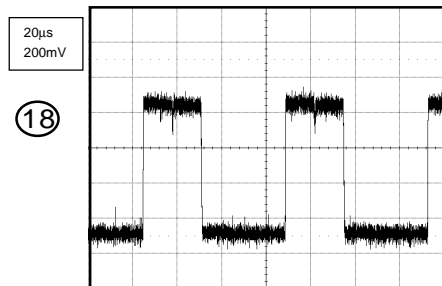
# WAVEFORMS



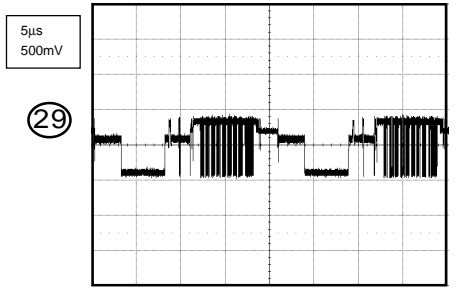
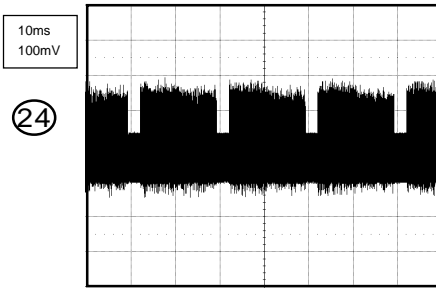
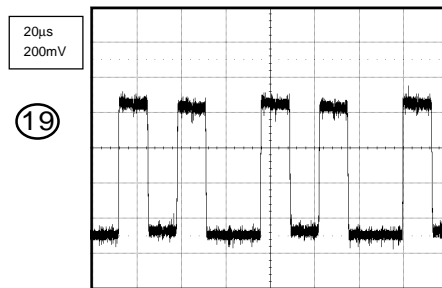
## ADC1



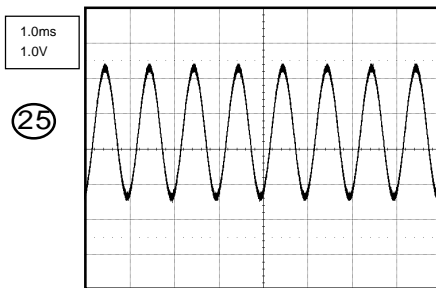
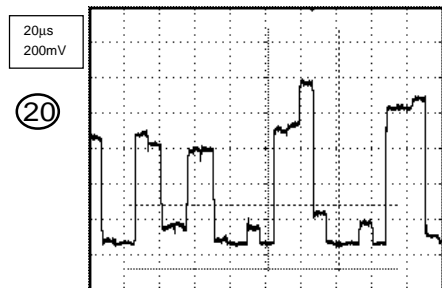
## ADC1



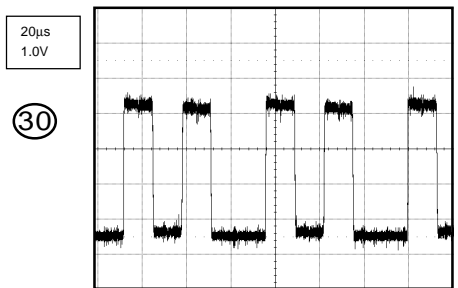
## LVDS



## JACK

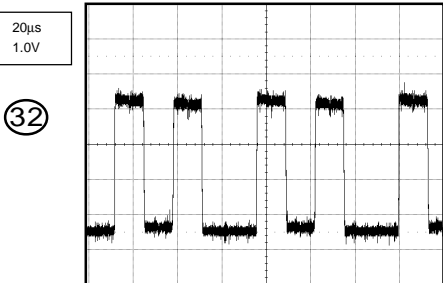
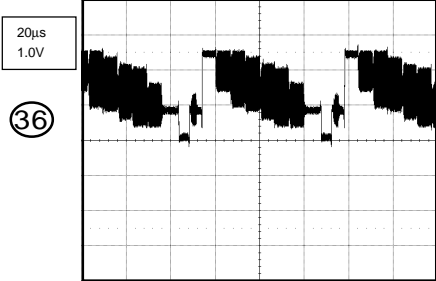
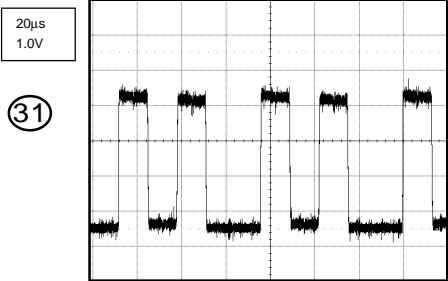


## INTERFACE\_HDMI IC

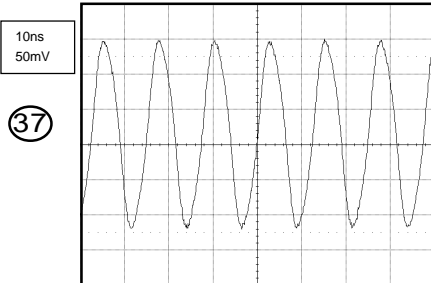


**NOTE:** The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

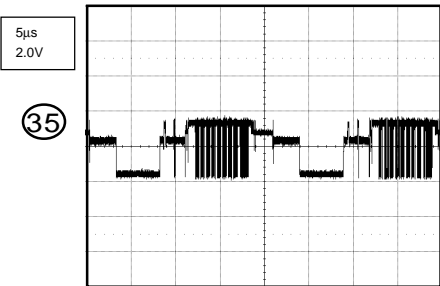
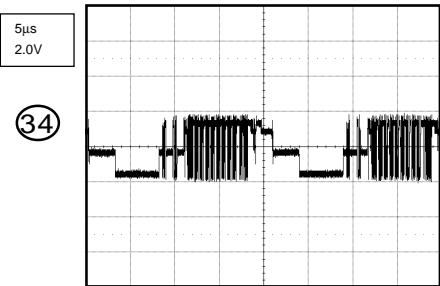
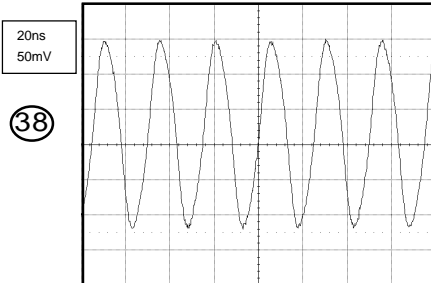
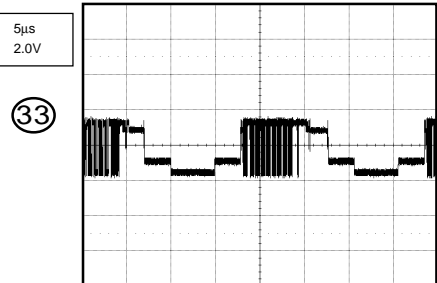
WAVEFORMS



ASIC

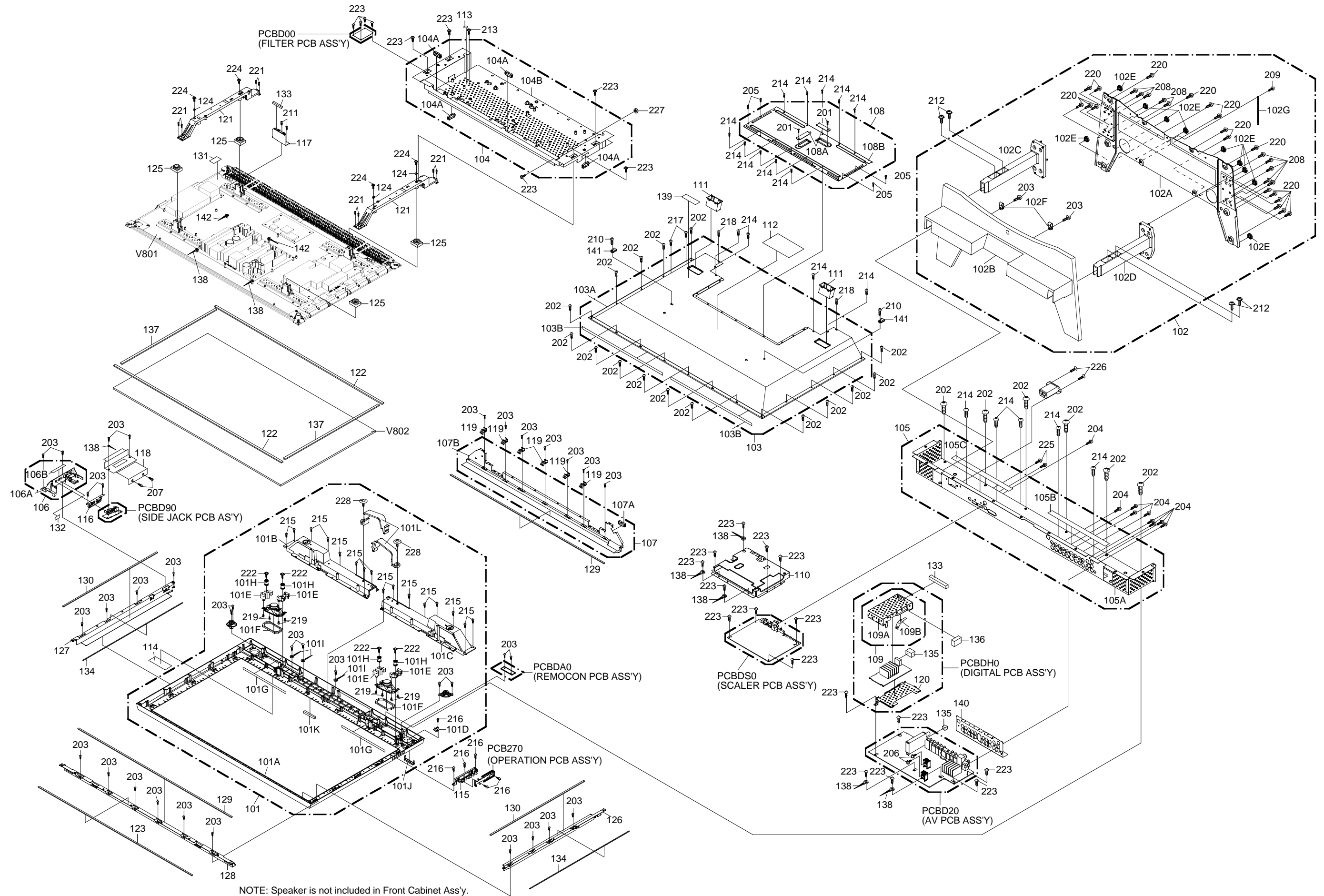


AV OUT



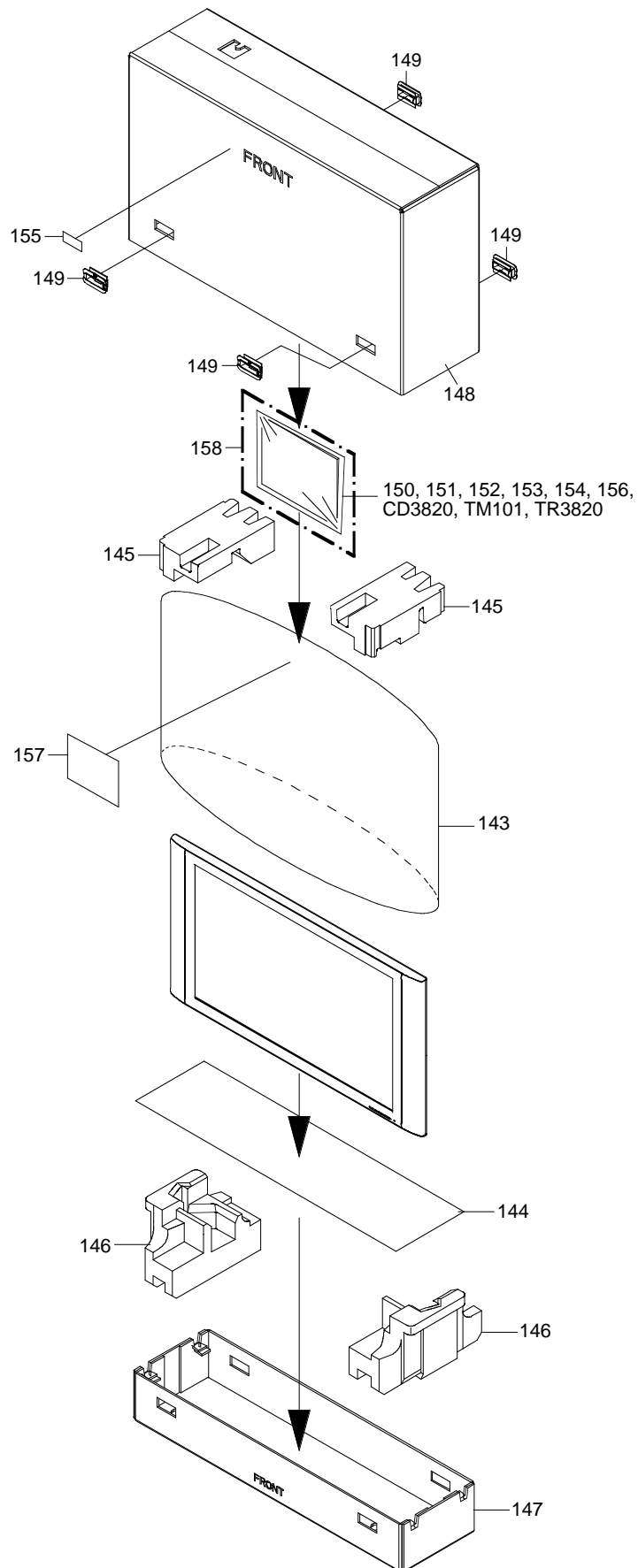
**NOTE:** The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

# MECHANICAL EXPLODED VIEW



NOTE: Speaker is not included in Front Cabinet Ass'y.

# MECHANICAL EXPLODED VIEW (PACKING DIAGRAM)



# MECHANICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description
101	72784200	7A7010191A	FRONT CABI ASS'Y
101A	72784165	701WPJ1414	CABINET,FRONT
101B	72784166	702WPA1216	COVER,SPEAKER (L)
101C	72784167	702WPA1217	COVER,SPEAKER (R)
101D	72783966	713WPA0386	GLASS,LED
101E	72783968	761WPA0431	HOLDER,SPEAKER
101F	72784208	800WF00065	CUSHION
101G	72781222	800WQA0092	FELT SHEET
101H	72794733	801WR00001	DAMPER SPEAKER
101I	72795699	899EFBA002	WIRING-CLIP
101J	72783965	711WPA0254	PLATE,REMOCON
101K	72798569	7235490037	BADGE,BRAND
101L	72783969	774WPA0009	HOLDER CORD
102	72784202	7A7040011A	STAND ASS'Y
102A	72784207	7G7610050A	ANGLE STAND ASS'Y
102B	72784171	704WPB0016	STAND
102C	72784187	761WEB0010	FRAME,BOTTOM-L
102D	72784188	761WEB0011	FRAME,BOTTOM-R
102E	72783974	800WRA0008	CUSHION,LEG
102F	72781311	899000NK4N	CABLE CLAMPS
102G	72781991	89982E42A0	BAND
103	72784201	7A7020071A	BACK CABI ASS'Y
103A	72784170	702WSB0128	CABINET,BACK
103B	72784211	800WQA00114	FELT SHEET
104	72783982	7G7520032A	ANGLE,PCB ASS'Y
104A	72783992	709WPA0043	HOLDER,CORD
104B	72783983	762WSA0078	ANGLE,PCB
105	72783987	7G7610045A	PLATE,JACK ASS'Y
105A	72783990	761WSB0029	PLATE,JACK
105B	72783988	7230008097	SHEET,JACK-1
105C	72783989	7230008140	SHEET,JACK-2
106	72783984	7A7010192A	PLATE,JACK-SIDE ASS'Y
106A	72783985	711WPA0256	PLATE,JACK-SIDE
106B	72783986	7230008098	SHEET,JACK(SIDE)
107	72784206	7G752A008A	SHIELD,MAIN-BOTTOM ASS'Y
107A	72783992	709WPA0043	HOLDER,CORD
107B	72784193	762WSA0082	SHIELD,MAIN-BOTTOM
108	72783976	7G7610043A	COVER,BACK ASS'Y
108A	72783978	702WPA1218	COVER,CONNECTOR
108B	72783977	761WSB0028	COVER,BACK
109	72784204	7G7520041A	SHIELD DIGITAL ASS'Y
109A	72783994	752WSA0555	SHIELD DIGITAL
109B	72795677	753WUAA006	SPRING EARTH H/AMP
110	72784179	752WSA0565	SHIELD SCALER
111	72784172	705WPA0020	HANDLE BACK
112	72784173	7225490230	SHEET,RATING
113	72784001	7260000353	SHEET EARTH MARK
114	72784175	7230008105	POP LABEL
115	72784002	738WPB0077	BUTTON,FRAME
116	72784003	752WSA0554	SHIELD,JACK-SIDE
117	72784181	752WSA0594	SHIELD,PLATE
118	72784182	753WEAA003	SHEET CU
119	72784184	753WUA0083	SPRING,EARTH

# MECHANICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description
120	72783995	752WSA0556	DIGITAL SHIELD COVER
121	72784186	761WEA0008	FRAME,MAIN
122	72784226	8965TS2A15	CUSHION W6/H2/L1015
123	72784227	8965TS2A50	CUSHION W6/H2/L1050
124	72784007	761WPA0427	HOLDER,BUSH
125	72784189	761WPA0445	HOLDER,CAP-LG
126	72784190	762WSA0079	SHIELD,MAIN-L
127	72784191	762WSA0080	SHIELD,MAIN-R
128	72784192	762WSA0081	SHIELD,MAIN-TOP
129	72784209	800WFA0086	CUSHION
130	72784210	800WFA0087	CUSHION
131	72781302	890MP2401A	TAPE 50*35
132	72784221	890MP2401G	TAPE 30X12
133	72781306	8965TS1060	CUSHION W10/H10/L60
134	72784222	8965TS0640	CUSHION W6/H2/L640
135	72798807	8965TS1010	CUSHION 65TS10-10(10*10*25)
136	72781978	8965TS1017	CUSHION 65TS10-10(17.5*20*14)
137	72784225	8965TS2550	CUSHION W6/H2/L550
138	72795699	899EFBA002	WIRING-CLIP
139	72784176	7250000606	SHEET CAUTION
140	72783997	752WSA0587	SHIELD,JACK
141	72784018	899ML02111	CABLE,CLAMP
142	72795680	8995034000	CORD CLIP UL CO.
143	72784020	791WHA0117	LAMI BAG
144	72784021	791WHA0118	LIGHTRON SHEET
145	72784195	792WHA0647	PACKAGE, TOP
146	72784196	792WHA0648	PACKAGE, BOTTOM
147	72784198	793WCA0018	GIFT, BOX BOTTOM
148	72784199	793WCD1732	GIFT, BOX TOP
149	72784026	794WHAA003	HANDLE
150	72784028	J3X70101A	INSTRUCTION BOOK(E)
151	72784029	J3X70110A	INSTRUCTION BOOK(F)
152	72784030	J3X70111A	INSTRUCTION BOOK(S)
153	72784239	J3X70199A	INFORMATION SHEET
154	72784240	JA4ND500	POLYBAG, INSTRUCTION(RED CAUTION)
155	72784174	7230008099	SHEET, BARCODE
156	72781569	J3N51617A	REGISTRATION CARD
157	72784178	7290000174	SHEET, PICTURE SHIFT
158	72784027	A3X701B975	INSTRUCTION BOOK KIT
201	72784033	810763080S	SCREW, TAP TITE(S) BRAZIER 3*8 BK
202	72784031	8117540A6S	SCREW, TAP TITE(B0) TRUSS 4*16 BK
203	72798791	8110630A0U	SCREW TAP TITE(P) BRAZIER 3*10 CH
204	72784034	810923080S	SCREW TAP TITE(B) BIND 3*8 BK
205	72784214	810273060S	SCREW, PLANE-R M3*6 BK
206	72781255	8109I3080U	SCREW TAP TITE(B) WH7 3*8 CH
207	72798789	8109I30A0U	SCREW TAP TITE(B) WH7 3*10 CH
208	72784215	810A140A4U	SCREW WASHER(A) M4*14 CH
209	72781977	814623080U	SCREW TAP TITE(B) BIND 3*5.7+4*2.3 CH
210	72784038	810B150A0S	SCREW, SEMS(B) 5*10 BK
211	72784217	810B140A0U	SCREW SEMS(B) 4*10 CH
212	72784039	810B150B0S	SCREW, SEMS(B) 5*20 BK
213	72784035	810C14080U	SCREW WASHER C 4*8 CH TOOTHED
214	72784041	810F23060S	SEMS(F)-R BIND 3*6 BK
215	72784042	8110230A4S	SCREW TAP TITE(P) BIND 3*14 BK
216	72798790	811063080U	SCREW TAP TITE(P) BRAZIER 3*8 CH
217	72784043	8110630A0S	SCREW TAP TITE(P) BRAZIER 3*10 BK
218	72784044	8110E3080S	SCREW, TAP TITE(P) WH10 3*8 BK
219	72781276	8117140A2U	SCREW, TAPPING(B0) PAN 4*12 CH



# MECHANICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description
220	72781277	8117540A0U	SCREW TAP TITE(B0) TRUSS 4*10 CH
221	72798795	8117540B0U	SCREW TAP TITE(B0) TRUSS 4*20 CH
222	72781295	8162540A6U	SCREW TAPPING (BO) WASHER 18
223	72784036	810B13080U	SCREW WASHER(B) M3*8 CH
224	72784218	8167150B0U	SCREW WASHER(B) 5*20 CH
225	72784032	810213080S	SCREW PAN M3*8 BK
226	72784040	810233080S	SCREW,FLAT M3*8 BK
227	72784219	830023000U	NUT M3
228	72781292	8159130A0S	SCREW,TAPPING(B) WASHER12 PAN 3*10 BLACK

# ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
<b>RESISTORS</b>				
R3849	72794621	R3X28B010J	R,METAL OXIDE	1 OHM 3W
<b>CAPACITORS</b>				
C3801	72784045	E61FF2102D	CE	1000 UF 16V
C3802	72784045	E61FF2102D	CE	1000 UF 16V
C3803	72784045	E61FF2102D	CE	1000 UF 16V
C3823	72781395	E61FF4102D	CE	1000 UF 35V
C3825	72784046	E61FF3821D	CE	820 UF 25V
C3826	72784046	E61FF3821D	CE	820 UF 25V
<b>DIODES</b>				
D105	72781371	DD7R20S300	DIODE,SCHOTTKY BARRIER	RB520S-30-TE61
D109	72781371	DD7R20S300	DIODE,SCHOTTKY BARRIER	RB520S-30-TE61
D302	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D303	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D304	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D305	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D306	72781371	DD7R20S300	DIODE,SCHOTTKY BARRIER	RB520S-30-TE61
D802	72781375	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
D803	72781375	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
D805	72781375	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
D807	72795897	DD7R0S3550	DIODE,SILICON	1SS355 TE-17
D808	72795897	DD7R0S3550	DIODE,SILICON	1SS355 TE-17
D901	72783214	D9WU05R62B	DIODE,ZENER	MTZJ5.6B-EIC
D2251	72794467	0021E9Q010	LED	LTL-1BEFJ-002A
D2252	72794491	D1VT001330	DIODE,SILICON	1SS133T-77
D2275	72795897	DD7R0S3550	DIODE,SILICON	1SS355 TE-17
D3206	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3207	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3208	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3209	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3212	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3402	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3403	72783762	D28R11FS20	DIODE	EC11FS2-TE12L
D3404	72783762	D28R11FS20	DIODE	EC11FS2-TE12L
D3405	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3406	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3407	72781371	DD7R20S300	DIODE,SCHOTTKY BARRIER	ER RB520S-30-TE61
D3408	72783763	D27RX301L0	DIODE,SCHOTTKY	RSX301L-30TE25
D3600	72781372	DD7R60L400	DIODE,SCHOTTKY	RB160L-40-TE25
D3601	72781361	D77R1A1R10	DIODE,VARISTA	AVRL161A1R1NT
D3602	72781375	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
D3603	72781361	D77R1A1R10	DIODE,VARISTA	AVRL161A1R1NT
D3604	72781372	DD7R60L400	DIODE,SCHOTTKY	RB160L-40-TE25
D3605	72781372	DD7R60L400	DIODE,SCHOTTKY	RB160L-40-TE25
D3609	72781374	DE7RB3R32B	DIODE,ZENER	UDZS3.3B TE-17
D3613	72781374	DE7RB3R32B	DIODE,ZENER	UDZS3.3B TE-17
D3626	72781361	D77R1A1R10	DIODE,VARISTA	AVRL161A1R1NT
D3627	72781361	D77R1A1R10	DIODE,VARISTA	AVRL161A1R1NT
D3628	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3629	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3630	72781375	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
D3803	72781352	D23A0010J0	DIODE,SCHOTTKY	SBR100-10J-CBC11
D3804	72783759	D4AT01H3E0	DIODE,RECTIFIER	1H3-E
D3805	72783759	D4AT01H3E0	DIODE,RECTIFIER	1H3-E
D3806	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3807	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3808	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3809	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3811	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3812	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
△D3900	72784073	D6C047110A	DIODE,VARISTA	ENE471D-10A
△D3901	72795544	D6E027110A	DIODE,VARISTA	ENE271D-10A
△D3902	72794484	DOU002720M	DIODE,VARISTA	DSS-272M-S00B
D4202	72784074	DE7RB1202B	DIODE,ZENER	UDZS12B TE-177
D4203	72784074	DE7RB1202B	DIODE,ZENER	UDZS12B TE-177
D4205	72781369	D9WU06R82B	DIODE,ZENER	MTZJ6.8B-EIC
D4206	72783414	D9WU08R22B	DIODE,ZENER	MTZJ8.2B-EIC
D4207	72783414	D9WU08R22B	DIODE,ZENER	MTZJ8.2B-EIC
D4208	72784074	DE7RB1202B	DIODE,ZENER	UDZS12B TE-177
D4209	72794491	D1VT001330	DIODE,SILICON	1SS133T-77
D4210	72784074	DE7RB1202B	DIODE,ZENER	UDZS12B TE-177
D4211	72784074	DE7RB1202B	DIODE,ZENER	UDZS12B TE-177
D4212	72784074	DE7RB1202B	DIODE,ZENER	UDZS12B TE-177
D4301	72781375	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
D4302	72781375	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17

# ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
<b>ICS</b>				
IC101	72784242	S3X701CM01	MEMORY DATA	OEC7147A
IC102	72795101	I9UF032290	IC	PST3229NR
IC103	72781506	ICR.J0256N0	IC	AT24C256N-10SU-2.7
IC104	72781506	ICR.J0256N0	IC	AT24C256N-10SU-2.7
△IC301	72781462	I1MFPA2020	IC	TA2024-ASE
IC801	72784084	I56K07A720	IC	R8J66607A72FP
IC904	72781455	I19FF4440G	IC	MSP4440G-QA-C13-100
IC2101	72781516	IFSK0883C0	IC	MST9883C-LF-110
IC2275	72797569	I0QF0580V0	IC	NJM4580V(Te1)
IC2401	72783775	IFNME240H0	IC	X240H(215H48AGA21HG)
IC2402	72783776	ICLJ022ET5	IC	HY5DU561622ETP-D43
IC2403	72783776	ICLJ022ET5	IC	HY5DU561622ETP-D43
IC2404	72783777	I57F04L640	IC	BR24L64F-WE2
IC2405	72781496	I97F052290	IC	BD5229G-TR
IC2406	72784241	S3X701CF01	MEMORY DATA	HY27US08281A-TPCB
△IC3201	72781440	I07F0C0WF0	IC	BA00BC0WFP-E2
△IC3202	72783780	I07F078200	IC	BD7820FP-E2
△IC3203	72783780	I07F078200	IC	BD7820FP-E2
IC3401	72783779	I1LF010420	IC	AL1042
△IC3402	72781440	I07F0C0WF0	IC	BA00BC0WFP-E2
△IC3403	72783780	I07F078200	IC	BD7820FP-E2
△IC3404	72783781	I07F00HFP0	IC	BA7810HFP-TR
IC3601	72783780	I07F078200	IC	BD7820FP-E2
IC3602	72781440	I07F0C0WF0	IC	BA00BC0WFP-E2
IC3605	72784078	IG1F090210	IC	SII9021CTU
IC3606	72796085	I57J0L02F0	IC	BR24L02F-WE2
IC3608	72784079	I57J0L32F0	IC	BR24L32F-WE2
IC3609	72796085	I57J0L02F0	IC	BR24L02F-WE2
IC3611	72784080	ICMF0T89E0	IC	SST89E58RD2-40-C-TQJE
IC3803	72781439	I07F093000	IC	BD9300FV-E2
△IC3804	72781444	I0GA9XF010	IC	PQ070XF01SZH
IC3805	72797534	I03D979950	IC	LA7995M-TLM
△IC3808	72784081	I07A078100	IC	BA7810T-V5
IC4201	72794501	I01F05853B	IC	AN15853B-E1
IC4204	72797567	I0QF025840	IC	NJM2584AM(Te1)
IC4304	72795918	I0QF02534V	IC	NJM2534V(Te2)
IC4305	72795918	I0QF02534V	IC	NJM2534V(Te2)
IC4401	72797567	I0QF025840	IC	NJM2584AM(Te1)
IC4402	72794502	I0UF015010	IC	MM1501XNRE
IC5801	72783369	I55J07W660	IC	TC7W66FU(Te12L,F)
IC7202	72784082	IF8F0385A0	IC	ICSV385AGLFT
IC7501	72784083	IF8K010000	IC	DV1000-75
IC8103	72794502	I0UF015010	IC	MM1501XNRE
IC8104	72797567	I0QF025840	IC	NJM2584AM(Te1)
<b>TRANSISTORS</b>				
Q101	72794567	TNAAC05002	COMPOUND TRANSISTOR	KRC103SRTK
Q104	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q105	72798367	TPAAC05002	COMPOUND TRANSISTOR	KRA103SRTK
Q106	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q300	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q301	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q302	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q901	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q902	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q2101	72794566	TAAA1504SY	TRANSISTOR,SILICON	KTA1504S_Y_RTK
Q2251	72784102	0001L00070	PHOTO DIODE	HPI6FGR4F2
Q2252	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q2275	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q2276	72795965	T67J048TL0	TRANSISTOR,SILICON	2SA2048TL
Q2277	72794566	TAAA1504SY	TRANSISTOR,SILICON	KTA1504S_Y_RTK
Q2401	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q2403	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q2404	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q2406	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q2407	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q3205	72798319	T77J011320	TRANSISTOR,SILICON	2SB1132T100(Q,R)
Q3206	72795962	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
Q3210	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q3211	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q3403	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q3404	72794567	TNAAC05002	COMPOUND TRANSISTOR	KRC103SRTK
△Q3405	72783827	TJYASP8K30	FET	SP8K3 TB
Q3406	72794567	TNAAC05002	COMPOUND TRANSISTOR	KRC103SRTK
Q3407	72798366	TPAAA05001	COMPOUND TRANSISTOR	KRA101SRTK
Q3603	72783825	T2AA5132E0	FET	KTK5132E-RTK/P

# ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
<b>TRANSISTORS</b>				
Q3604	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q3605	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q3606	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q3607	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q3613	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q3614	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q3615	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q3616	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q3617	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q3618	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q3619	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q3620	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q3621	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q3801	72794572	TPYJC05001	COMPOUND TRANSISTOR	DTA124EKAT146
Q3802	72795962	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
Q3804	72794572	TPYJC05001	COMPOUND TRANSISTOR	DTA124EKAT146
Q3805	72795962	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
Q3806	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q3807	72795964	T67J1036K0	TRANSISTOR,SILICON	2SA1036KT146
Q3808	72781787	T0300J6500	FET	2SJ650
Q4200	72794566	TAAA1504SY	TRANSISTOR,SILICON	KTA1504S_Y_RTK
Q4201	72794566	TAAA1504SY	TRANSISTOR,SILICON	KTA1504S_Y_RTK
Q4202	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q4203	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q4205	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q4206	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q4207	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q4208	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q4209	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q4210	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q4211	72794566	TAAA1504SY	TRANSISTOR,SILICON	KTA1504S_Y_RTK
Q4231	72798367	TPAAC05002	COMPOUND TRANSISTOR	KRA103SRTK
Q4233	72795962	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
Q4302	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q4305	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q4401	72794566	TAAA1504SY	TRANSISTOR,SILICON	KTA1504S_Y_RTK
Q4402	72798367	TPAAC05002	COMPOUND TRANSISTOR	KRA103SRTK
Q4403	72795962	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
Q4409	72794566	TAAA1504SY	TRANSISTOR,SILICON	KTA1504S_Y_RTK
Q4410	72794566	TAAA1504SY	TRANSISTOR,SILICON	KTA1504S_Y_RTK
Q5801	72781807	TPRAA05002	COMPOUND TRANSISTOR	RT1P431C-T112-1
Q5802	72796429	TNRAC05003	COMPOUND TRANSISTOR	RT1N241C-T112-1
Q5803	72783390	T82A03841Q	TRANSISTOR,SILICON	2SC3841-T1B_T63
Q5804	72783390	T82A03841Q	TRANSISTOR,SILICON	2SC3841-T1B_T63
Q5805	72783390	T82A03841Q	TRANSISTOR,SILICON	2SC3841-T1B_T63
Q8101	72794566	TAAA1504SY	TRANSISTOR,SILICON	KTA1504S_Y_RTK
Q8102	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q8103	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q8105	72794566	TAAA1504SY	TRANSISTOR,SILICON	KTA1504S_Y_RTK
Q8106	72794566	TAAA1504SY	TRANSISTOR,SILICON	KTA1504S_Y_RTK
<b>COILS &amp; TRANSFORMERS</b>				
L300	72798924	021W0G100M	COIL	10 UH
L301	72798924	021W0G100M	COIL	10 UH
L302	72798924	021W0G100M	COIL	10 UH
L303	72798924	021W0G100M	COIL	10 UH
L901	72795062	02167F100J	COIL	10 UH
L903	72795062	02167F100J	COIL	10 UH
L904	72795062	02167F100J	COIL	10 UH
L2101	72798914	0216S8220K	COIL	F 22 UH
L2102	72798914	0216S8220K	COIL	F 22 UH
L2103	72798916	0216S8470K	COIL	F 47 UH
L2106	72798912	0216S8150K	COIL	F 15 UH
L2107	72798914	0216S8220K	COIL	F 22 UH
L2275	72796089	02167F470J	COIL	47 UH
L2401	72798917	0216SD1R0J	COIL	1 UH
L2402	72796575	021LA62R2M	COIL	2.2 UH
L2411	72783384	0216SDR47J	COIL	0.47 UH
L2412	72783384	0216SDR47J	COIL	0.47 UH
L2413	72783384	0216SDR47J	COIL	0.47 UH
L2414	72783384	0216SDR47J	COIL	0.47 UH
L3401	72783801	0211M44R7M	COIL	4.7 UH
L3601	72798955	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3602	72798955	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3603	72798955	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3604	72798955	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00

# ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
<b>COILS &amp; TRANSFORMERS</b>				
L3605	72798955	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3606	72798955	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3607	72798955	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3608	72798955	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3623	72784092	0216SD220J	COIL	22 UH
L3801	72796513	02167E220K	COIL	R7 22 UH
L3802	72796087	02167E100K	COIL	R6-1 10 UH
L3803	72796513	02167E220K	COIL	R7 22 UH
L3804	72796513	02167E220K	COIL	R7 22 UH
L3805	72798897	0214646R8M	COIL	6.8 UH
L3808	72798924	021W0G100M	COIL	10 UH
L3809	72798897	0214646R8M	COIL	6.8 UH
L3810	72796087	02167E100K	COIL	R6-1 10 UH
L3811	72796513	02167E220K	COIL	R7 22 UH
L4200	72796402	021LA6220K	COIL	22 UH
L4201	72794540	02167F101J	COIL	100 UH
L4202	72796089	02167F470J	COIL	47 UH
L4203	72796089	02167F470J	COIL	47 UH
L4204	72794536	021LA6330J	COIL	33 UH
L4206	72796089	02167F470J	COIL	47 UH
L4207	72796089	02167F470J	COIL	47 UH
L4211	72794540	02167F101J	COIL	100 UH
L4212	72796571	021LA6220J	COIL	22 UH
L4213	72796571	021LA6220J	COIL	22 UH
L4214	72796571	021LA6220J	COIL	22 UH
L4215	72796571	021LA6220J	COIL	22 UH
L4216	72796571	021LA6220J	COIL	22 UH
L4217	72796571	021LA6220J	COIL	22 UH
L4218	72796571	021LA6220J	COIL	22 UH
L4219	72796571	021LA6220J	COIL	22 UH
L4220	72796571	021LA6220J	COIL	22 UH
L4221	72796571	021LA6220J	COIL	22 UH
L4227	72796402	021LA6220K	COIL	22 UH
L4301	72798916	0216S8470K	COIL	F 47 UH
L4306	72798914	0216S8220K	COIL	F 22 UH
L4401	72796089	02167F470J	COIL	47 UH
L4402	72796089	02167F470J	COIL	47 UH
L4403	72795062	02167F100J	COIL	10 UH
L5802	72794526	02167F220J	COIL	22 UH
L5803	72794540	02167F101J	COIL	100 UH
L5804	72796571	021LA6220J	COIL	22 UH
L7201	72798916	0216S8470K	COIL	F 47 UH
L7202	72798916	0216S8470K	COIL	F 47 UH
L7203	72798916	0216S8470K	COIL	F 47 UH
L7502	72798916	0216S8470K	COIL	F 47 UH
L8102	72798916	0216S8470K	COIL	F 47 UH
L8104	72798916	0216S8470K	COIL	F 47 UH
L8105	72798914	0216S8220K	COIL	F 22 UH
<b>JACKS</b>				
J2275	72796730	060J121014	JACK,RCA,3.5	MSJ-035-12A_PC
J3601	72784085	060J131019	HEADPHONE JACK	MSJ-2000B_AG(O87)
J4201	72784086	060K411049	RCA JACK	AV3-13P2-11S1
J4202	72784087	060K401126	RCA JACK	AVG-2-13
J4204	72784088	060Q471008	RCA JACK	YKC21-4613N
J4205	72784089	063E000082	JACK PLATE	SAV-12CP-01Z5
J4206	72783793	063E700012	JACK	S4-25SZ
J4207	72783794	060K421056	RCA JACK	AV-5A-66H
J4208	72783795	060K421058	RCA JACK	AV-5A-68H
J4209	72783796	060K421057	RCA JACK	AV-5A-67H
J4211	72784090	060Q441004	RCA JACK	YKC21-4720N
J4301	72784091	060J431025	RCA JACK	MSD-242VA1-03_NI_FE_LF
<b>SWITCHES</b>				
SW2201	72794688	0504101T34	SWITCH,TACT	EVQ21505R
SW2202	72794688	0504101T34	SWITCH,TACT	EVQ21505R
SW2203	72794688	0504101T34	SWITCH,TACT	EVQ21505R
SW2204	72794688	0504101T34	SWITCH,TACT	EVQ21505R
SW2205	72794688	0504101T34	SWITCH,TACT	EVQ21505R
SW2206	72794688	0504101T34	SWITCH,TACT	EVQ21505R
<b>P.C.BOARD ASSEMBLIES</b>				
PCB270	72784228	A3X701C270	OPERATION PCB ASS'Y	CEE133A
PCBD00	72784229	A3X701CD00	FILTER PCB ASS'Y	CEE131A
PCBD20	72784230	A3X701CD20	AV PCB ASS'Y	CMF083A
PCBD90	72784231	A3X701CD90	SIDE JACK PCB ASS'Y	CEE134A
PCBDA0	72784232	A3X701CDA0	REMOCON PCB ASS'Y	CEF179A
PCBDH0	72784233	A3X701CDH0	DIGITAL PCB ASS'Y	CEF169A

# ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description
<b>P.C.BOARD ASSEMBLIES</b>			
PCBDS0	72784234	A3X701CDS0	SCALER PCB ASS'Y
<b>MISCELLANEOUS</b>			
B801	72798930	024AC5181J	CORE,BEADS
B802	72798930	024AC5181J	CORE,BEADS
B803	72798931	024AC5600E	CORE,BEADS
B804	72798931	024AC5600E	CORE,BEADS
B805	72798930	024AC5181J	CORE,BEADS
B806	72798931	024AC5600E	CORE,BEADS
B901	72798931	024AC5600E	CORE,BEADS
B902	72798931	024AC5600E	CORE,BEADS
B903	72798931	024AC5600E	CORE,BEADS
B904	72798929	024AC5102F	CORE,BEADS
B905	72798929	024AC5102F	CORE,BEADS
B906	72798929	024AC5102F	CORE,BEADS
B2101	72798931	024AC5600E	CORE,BEADS
B2271	72798931	024AC5600E	CORE,BEADS
B2401	72783737	024AC5151E	CORE,BEADS
B2402	72783737	024AC5151E	CORE,BEADS
B2403	72783737	024AC5151E	CORE,BEADS
B2404	72783737	024AC5151E	CORE,BEADS
B2405	72783737	024AC5151E	CORE,BEADS
B2406	72783737	024AC5151E	CORE,BEADS
B2407	72783736	024AC1601G	CORE,BEADS
B2408	72783736	024AC1601G	CORE,BEADS
B2409	72783736	024AC1601G	CORE,BEADS
B2410	72783737	024AC5151E	CORE,BEADS
B2411	72783737	024AC5151E	CORE,BEADS
B2412	72783737	024AC5151E	CORE,BEADS
B2413	72798929	024AC5102F	CORE,BEADS
B2414	72798929	024AC5102F	CORE,BEADS
B2415	72798929	024AC5102F	CORE,BEADS
B2416	72783737	024AC5151E	CORE,BEADS
B2417	72783737	024AC5151E	CORE,BEADS
B2418	72783737	024AC5151E	CORE,BEADS
B2419	72783737	024AC5151E	CORE,BEADS
B2420	72783737	024AC5151E	CORE,BEADS
B2421	72798929	024AC5102F	CORE,BEADS
B2422	72798929	024AC5102F	CORE,BEADS
B2423	72798929	024AC5102F	CORE,BEADS
B2424	72798929	024AC5102F	CORE,BEADS
B2425	72798929	024AC5102F	CORE,BEADS
B2426	72798929	024AC5102F	CORE,BEADS
B2427	72798929	024AC5102F	CORE,BEADS
B3201	72798930	024AC5181J	CORE,BEADS
B3202	72798930	024AC5181J	CORE,BEADS
B3203	72798930	024AC5181J	CORE,BEADS
B3205	72798930	024AC5181J	CORE,BEADS
B3206	72798930	024AC5181J	CORE,BEADS
B3207	72798930	024AC5181J	CORE,BEADS
B3401	72783734	024AC5330J	CORE,BEADS
B3402	72783735	024AC1391G	CORE,BEADS
B3406	72783736	024AC1601G	CORE,BEADS
B3407	72783736	024AC1601G	CORE,BEADS
B3408	72783736	024AC1601G	CORE,BEADS
B3410	72783737	024AC5151E	CORE,BEADS
B3601	72796605	024HC36001	CORE,BEADS
B3602	72796605	024HC36001	CORE,BEADS
B3603	72796605	024HC36001	CORE,BEADS
B3604	72796605	024HC36001	CORE,BEADS
B3605	72798931	024AC5600E	CORE,BEADS
B3606	72798929	024AC5102F	CORE,BEADS
B3612	72798929	024AC5102F	CORE,BEADS
B3613	72796605	024HC36001	CORE,BEADS
B3621	72795787	0246C51024	CORE,BEADS
B3622	72795787	0246C51024	CORE,BEADS
B4202	72798931	024AC5600E	CORE,BEADS
B4204	72798931	024AC5600E	CORE,BEADS
B4205	72798931	024AC5600E	CORE,BEADS
B4208	72794355	024HT03563	CORE,BEADS
B4209	72794355	024HT03563	CORE,BEADS
B4210	72794355	024HT03563	CORE,BEADS
B4211	72798931	024AC5600E	CORE,BEADS
B4214	72798931	024AC5600E	CORE,BEADS
B4215	72798931	024AC5600E	CORE,BEADS
B4216	72798931	024AC5600E	CORE,BEADS

# ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
<b>MISCELLANEOUS</b>				
B4217	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4218	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4219	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4220	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4221	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4222	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4225	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4303	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4304	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4305	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4307	72795787	0246C51024	CORE,BEADS	MMZ1608R102CT
B4308	72795787	0246C51024	CORE,BEADS	MMZ1608R102CT
B4461	72795787	0246C51024	CORE,BEADS	MMZ1608R102CT
B5801	72798930	024AC5181J	CORE,BEADS	BLM18PG181SN1D
B5802	72798930	024AC5181J	CORE,BEADS	BLM18PG181SN1D
B5803	72798930	024AC5181J	CORE,BEADS	BLM18PG181SN1D
B5805	72798930	024AC5181J	CORE,BEADS	BLM18PG181SN1D
B7202	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B7501	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B7502	72798930	024AC5181J	CORE,BEADS	BLM18PG181SN1D
BT001	72783174	141U004016	BATTERY,MANGAN	MNAAA(R03)
BT002	72783174	141U004016	BATTERY,MANGAN	MNAAA(R03)
CD301	72784048	06CU13A301	CORD,CONNECTOR	CU13A301
CD303	72784159	06CU12A501	CORD,CONNECTOR	CU12A501
CD801	72784062	06CH011208	CORD,CONNECTOR	CH011208
CD802	72784062	06CH011208	CORD,CONNECTOR	CH011208
CD901	72784063	06CU247001	CORD,CONNECTOR	CU247001
CP101	72796798	069S250629	CONNECTOR PCB SIDE	A2001WV2-5P
CP102	72796806	069S2A0629	CONNECTOR PCB SIDE	A2001WV2-10P
CP103	72796801	069S270629	CONNECTOR PCB SIDE	A2001WV2-7P
CP301	72784066	069S130419	CONNECTOR PCB SIDE	A2502WV2-3P
CP303	72796792	069S120419	CONNECTOR PCB SIDE	A2502WV2-2P
CP802	72799028	069EVU3030	CONNECTOR PCB SIDE	00_6232_030_006_800+
CP803	72799027	069EVT3030	CONNECTOR PCB SIDE	00_6232_029_006_800+
CP901	72796796	069S240629	CONNECTOR PCB SIDE	A2001WV2-4P
CD2203	72784047	06CU23A001	CORD,CONNECTOR	CU23A001
CD3801	72784160	06CU641802	CORD,CONNECTOR	CU641802
CD3802	72784051	06CU622201	CORD,CONNECTOR	CU622201
CD3803	72784161	06CU6C1701	CORD,CONNECTOR	CU6C1701
CD3804	72784053	06CU672301	CORD,CONNECTOR	CU672301
CD3807	72784054	06CU2B3901	CORD,CONNECTOR	CU2B3901
△CD3820	72784055	120D024502	CORD AC	4L0J-050-00K
CD3831	72784056	06CU012202	CORD,CONNECTOR	CU012202
CD3900	72784057	06CUU21001	CORD,CONNECTOR	CUU21001
CD3901	72784058	06CUU33002	CORD,CONNECTOR	CUU33002
CD4200	72784059	06CU28A005	CORD,CONNECTOR	CU28A005
CD4202	72784060	06CU267901	CORD,CONNECTOR	CU267901
CD4203	72799271	122HOT0801	CORD,JUMPER	2HOT0801
CD4204	72799273	122H0U0802	CORD,JUMPER	2H0U0802
CD7206	72784061	06CUZV6301	CORD,CONNECTOR	CUZV6301
CP2200	72796794	069S230629	CONNECTOR PCB SIDE	A2001WV2-3P
CP2203	72796795	069S230639	CONNECTOR PCB SIDE	A2001WR2-3P
CP2251	72799047	069S260639	CONNECTOR PCB SIDE	A2001WR2-6P
CP2403	72784064	06972KT059	CONNECTOR PCB SIDE	125607220W3
CP2404	72784064	06972KT059	CONNECTOR PCB SIDE	125607220W3
CP2405	72784065	069AAA1009	CONNECTOR PCB SIDE	YKF45-0036N
CP3201	72796807	069S2B0629	CONNECTOR PCB SIDE	A2001WV2-11P
CP3601	72799030	069HYJ3010	CONNECTOR PCB SIDE	DC1R019JDA
CP3602	72796796	069S240629	CONNECTOR PCB SIDE	A2001WV2-4P
CP3603	72799030	069HYJ3010	CONNECTOR PCB SIDE	DC1R019JDA
CP3604	72796804	069S290629	CONNECTOR PCB SIDE	A2001WV2-9P
CP3801	72784067	069S140019	CONNECTOR PCB SIDE	A2501WV2-4P
CP3802	72784068	069S120019	CONNECTOR PCB SIDE	A2501WV2-2P
CP3803	72784069	069S1C0019	CONNECTOR PCB SIDE	A2501WV2-12P
CP3804	72784070	069S170019	CONNECTOR PCB SIDE	A2501WV2-7P
CP3807	72796807	069S2B0629	CONNECTOR PCB SIDE	A2001WV2-11P
△CP3900	72796817	069S320419	CONNECTOR PCB SIDE	A3963WV2-3PD
△CP3901	72796817	069S320419	CONNECTOR PCB SIDE	A3963WV2-3PD
CP4200	72796803	069S280629	CONNECTOR PCB SIDE	A2001WV2-8P
CP4201	72796803	069S280629	CONNECTOR PCB SIDE	A2001WV2-8P
CP4202	72796800	069S260629	CONNECTOR PCB SIDE	A2001WV2-6P
CP4203	72799027	069EVT3030	CONNECTOR PCB SIDE	00_6232_029_006_800+
CP4204	72799028	069EVU3030	CONNECTOR PCB SIDE	00_6232_030_006_800+
CP4302	72799010	0694S15017	CONNECTOR PCB SIDE	1-1734344-1
CP5801	72784071	06972KM020	CONNECTOR PCB SIDE	TKC-W20P-U1

# ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
<b>MISCELLANEOUS</b>				
CP5802	72784071	06972KM020	CONNECTOR PCB SIDE	TKC-W20P-U1
CP7202	72784072	069HTR001A	CONNECTOR PCB SIDE	FI-TWE31PB-VF
ELD001	72797069	124116281A	EYE LET	XRY16X28BD
ELD002	72797070	124120301A	EYE LET	XRY20X30BD
△F3900	72784075	081PC08005	FUSE	51MS080L
FH3900	72794496	06710T0009	HOLDER,FUSE	EYF-52BCY
FH3901	72794496	06710T0009	HOLDER,FUSE	EYF-52BCY
NR801	72799237	110P4000M4	R.NETWORK	4D03WJ0000T5E
NR802	72799240	110P4470M4	R.NETWORK	4D03WJ0470T5E
NR803	72799240	110P4470M4	R.NETWORK	4D03WJ0470T5E
NR804	72799240	110P4470M4	R.NETWORK	4D03WJ0470T5E
NR805	72799240	110P4470M4	R.NETWORK	4D03WJ0470T5E
NR806	72799240	110P4470M4	R.NETWORK	4D03WJ0470T5E
NR807	72799240	110P4470M4	R.NETWORK	4D03WJ0470T5E
NR2101	72797034	110P4101M4	R.NETWORK	4D03WJ0101T5E
NR2102	72797034	110P4101M4	R.NETWORK	4D03WJ0101T5E
NR2103	72797034	110P4101M4	R.NETWORK	4D03WJ0101T5E
NR2104	72797034	110P4101M4	R.NETWORK	4D03WJ0101T5E
NR2105	72797034	110P4101M4	R.NETWORK	4D03WJ0101T5E
NR2106	72797034	110P4101M4	R.NETWORK	4D03WJ0101T5E
NR2401	72783802	110P4102M5	R.NETWORK	4D02WJ0102TCE
NR2402	72783385	110P4220M6	R.NETWORK	4D02WJ0220TCE
NR2403	72783385	110P4220M6	R.NETWORK	4D02WJ0220TCE
NR2404	72783385	110P4220M6	R.NETWORK	4D02WJ0220TCE
NR2405	72783385	110P4220M6	R.NETWORK	4D02WJ0220TCE
NR2406	72783803	110P4560M5	R.NETWORK	4D02WJ0560TCE
NR2407	72783803	110P4560M5	R.NETWORK	4D02WJ0560TCE
NR2408	72783803	110P4560M5	R.NETWORK	4D02WJ0560TCE
NR2409	72783803	110P4560M5	R.NETWORK	4D02WJ0560TCE
NR2410	72783803	110P4560M5	R.NETWORK	4D02WJ0560TCE
NR2411	72783803	110P4560M5	R.NETWORK	4D02WJ0560TCE
NR2412	72783803	110P4560M5	R.NETWORK	4D02WJ0560TCE
NR2413	72783803	110P4560M5	R.NETWORK	4D02WJ0560TCE
NR3601	72799237	110P4000M4	R.NETWORK	4D03WJ0000T5E
NR3602	72799237	110P4000M4	R.NETWORK	4D03WJ0000T5E
NR3603	72799237	110P4000M4	R.NETWORK	4D03WJ0000T5E
NR3604	72799237	110P4000M4	R.NETWORK	4D03WJ0000T5E
NR3605	72799237	110P4000M4	R.NETWORK	4D03WJ0000T5E
NR3606	72799237	110P4000M4	R.NETWORK	4D03WJ0000T5E
NR7203	72799238	110P4220M4	R.NETWORK	4D03WJ0220T5E
NR7204	72799238	110P4220M4	R.NETWORK	4D03WJ0220T5E
NR7501	72799240	110P4470M4	R.NETWORK	4D03WJ0470T5E
NR7502	72799240	110P4470M4	R.NETWORK	4D03WJ0470T5E
NR7503	72799240	110P4470M4	R.NETWORK	4D03WJ0470T5E
NR7504	72799240	110P4470M4	R.NETWORK	4D03WJ0470T5E
NR7505	72799240	110P4470M4	R.NETWORK	4D03WJ0470T5E
NR7506	72799240	110P4470M4	R.NETWORK	4D03WJ0470T5E
OS2251	72784093	077A033001	REMOTE RECEIVER	ROM-V338TAO
OS4202	72784094	07AE000012	OPTICAL DEVICE	TOTX177(F,T)
PH3900	72796825	069W01001A	CONNECTOR PCB SIDE	003P-2100
PH3901	72796825	069W01001A	CONNECTOR PCB SIDE	003P-2100
△SP301	72784103	0701016002	SPEAKER	EAS12D175B
△SP302	72784103	0701016002	SPEAKER	EAS12D175B
△SP303	72784104	0701026001	SPEAKER	EAS5PH134C
△SP304	72784104	0701026001	SPEAKER	EAS5PH134C
TM101	72781948	076D0KK020	TRANSMITTER	ORT204UA605025-J
TR301	72796088	02AHB9A972	CORE,FERRITE	W5T29X7.5X19
TR302	72796088	02AHB9A972	CORE,FERRITE	W5T29X7.5X19
TR3805	72784107	02A6C0A3Y1	CORE,FERRITE	ZCAT3035-1330
TR3806	72784106	02A6B3A3T1	CORE,FERRITE	ZCAT2436-1330A
TR3820	72784105	02A6A990S2	CORE,FERRITE	ZCAT2035-0930A-BK
TR4201	72796088	02AHB9A972	CORE,FERRITE	W5T29X7.5X19
TR4202	72796088	02AHB9A972	CORE,FERRITE	W5T29X7.5X19
TR4205	72784107	02A6C0A3Y1	CORE,FERRITE	ZCAT3035-1330
TR4206	72784106	02A6B3A3T1	CORE,FERRITE	ZCAT2436-1330A
TR6501	72784107	02A6C0A3Y1	CORE,FERRITE	ZCAT3035-1330
TR6502	72796088	02AHB9A972	CORE,FERRITE	W5T29X7.5X19
△TU5801	72783832	0164100007	DIGITAL TUNER	ENG36A53KF
△V801	72784162	09HD142004	PDP	PDP42X3####
V802	72784163	09JE042002	PDP FILTER	FG410NAA-05
X101	72799226	100WT01611	CRYSTAL	HC-49/U-S
X801	72799227	100YT05401	CRYSTAL	FCX-03
X901	72797001	100CT01803	CRYSTAL	HC-49/U-S
X2401	72783833	100DT05501	CRYSTAL	SMD-49
X2402	72783834	100DT02503	CRYSTAL	SMD-49



# ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
<b>MISCELLANEOUS</b>				
X3601	72799220	100CT01101	CRYSTAL	HC-49/U-S
X3602	72783835	100DT02801	CRYSTAL	SMD-49
X7501	72784110	100DT02006	CRYSTAL	DSO751SV

## RESISTOR

RC..... CARBON RESISTOR

## CAPACITORS

CC..... CERAMIC CAPACITOR  
CE..... ALUMI ELECTROLYTIC CAPACITOR  
CP..... POLYESTER CAPACITOR  
CPP..... POLYPROPYLENE CAPACITOR  
CPL..... PLASTIC CAPACITOR  
CMP..... METAL POLYESTER CAPACITOR  
CMPL..... METAL PLASTIC CAPACITOR  
CMPP..... METAL POLYPROPYLENE CAPACITOR

# **TOSHIBA CORPORATION**

1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN